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DEPRESSION AND REVIVAL

A SERIES OF ADDRESSES AND PAPERS PRESENTED AT THE SEMI-ANNUAL MEETING OF THE ACADEMY OF POLITICAL SCIENCE
APRIL 24, 1931

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PREFACE

IT may safely be asserted that no other topic has been more universally the subject of anxious concern, during this past year, and of discussion both expert and inexpert, than the grave economic depression which has spread its dolorous effects throughout the world. Yet so little agreement has been reached concerning either the causes of this malady or the means of curing it, that there is ample justification for a coöperative attempt at diagnosis. To this end the Academy of Political Science has called into consultation a group of eminent specialists—economists, bankers, statisticians, experts on government, on industry, on finance, on labor, on agriculture. Their constructive contributions to a solution of the problem are published in the following pages, which present the record of the Academy's Semi-Annual Meeting (Fifty-first Year), held on April 24, 1931, at the Hotel Astor in New York City.

The program of this Semi-Annual Meeting was as follows:

PROGRAM

FIRST SESSION

FRIDAY, APRIL 24, 1931, 10 A. M.

NORTH BALLROOM, HOTEL ASTOR

Topic: Causes of Depression

RUSSELL C. LEFFINGWELL, *Presiding*
of J. P. Morgan and Co.

1. *Overproduction and Business Cycles.*
   CARL SNYDER, Federal Reserve Bank of New York.

2. *Political Insecurity as a Factor in Business Depression.*
   ARTHUR NORMAN HOLCOMBE, Professor of Government, Harvard University.

3. *The Effect of Tariff Changes on Depression and Revival and the Need for a World Tariff Understanding.*

   JOHN H. FAHEY, Editor, *Worcester Post,* Mass.; former President, U. S. Chamber of Commerce.

4. *Responsibility of Overproduction for Agricultural Depression.*

   LEWIS C. GRAY, LL.D., Economist in Charge, Division of Land Economics, U. S. Bureau of Agricultural Economics.

Discussion.

WESLEY C. MITCHELL, Professor of Economics, Columbia University; Director, National Bureau of Economic Research.

SECOND SESSION

FRIDAY, APRIL 24, 1931, 2:30 P. M.
NORTH BALLROOM, HOTEL ASTOR

Topic: International Economic Relations

PIERRE JAY, *Presiding*
Former Deputy Agent General for Reparations Payments

1. *The Soviet Five-Year Plan.*

   SAMUEL N. HARPER, Professor of Russian Language and Institutions, University of Chicago.

2. *General Price Stabilization.*

   JAMES W. ANGELL, Professor of Economics, Columbia University.

3. *The Relation of Wages to the Problem of Recovery.*

   DR. LEO WOLMAN, National Bureau of Economic Research.

4. *The Gold Problem and Its Relation to World Economic Recovery.*

   JOHN H. WILLIAMS, Professor of Economics, Harvard University.

Discussion.

PAUL SCHEFFER, Washington Correspondent of the *Berliner Tageblatt.*

HENRY A. E. CHANDLER, Economist, Guaranty Trust Company of New York.

For the convenience of readers who were unable to attend the sessions at the Hotel Astor, brief biographical sketches of the speakers on the program are given here, in alphabetical order.

JAMES W. ANGELL, Professor of Economics at Columbia University, was introduced by the chairman at the afternoon session as " one of the ablest of the younger economists ". He is already known to readers of this publication, as a contributor to previous numbers of the PROCEEDINGS. His volume on *The Recovery of Germany* is a searching analysis of the effects of the post-war crisis, inflation, deflation, reparation burdens and foreign borrowing on German economic life.

HENRY A. E. CHANDLER taught economics at the University of Arizona from 1908 to 1914 and at Columbia from 1916 to 1920. Increasingly he was called upon to serve in an advisory capacity in state, national and international problems of finance. Resigning his professorial chair in 1920, he entered the Bank of Commerce as its economist, and subsequently he accepted the position which he now holds as economist of the Guaranty Trust Company, New York.

JOHN H. FAHEY, publisher of the *Worcester* (Mass.) *Post*, is prominent not only as a newspaper editor, but as a banker and as a student of international business problems. He was chairman of the delegation which visited Europe in 1911 as representatives of Chambers of Commerce in the United States; in later years he became successively chairman of the executive committee, president, honorary vice-president, and member of the senior council of the Chamber of Commerce of the United States. He is now chairman of its committee on foreign affairs. He was chairman of the organizing committee of the International Chamber of Commerce and served as American director of that body from 1921 to 1926. He is a chevalier of the Legion of Honor, commander of the Order of the Crown (Italy), and officer of the Order of the Golden Sheaf (China).

Lewis C. Gray has been economist in charge of the Division of Land Economics in the United States Bureau of Agricultural Economics since 1919. Before taking his present post, he taught economics as a university professor and rendered expert service to various agencies of the national government. He has represented the United States Department of Agriculture at meetings of the International Institute of Agriculture.

Samuel N. Harper is one of the very few Americans qualified both by lifelong study and by intimate first-hand knowledge to speak with authority on the subject of Russia. He has made frequent visits to Russia before and since the Revolution, and has written an illuminating volume on *Civic Training in Soviet Russia.* At the University of Chicago, of which his father was the first president, he holds the chair of Russian Language and Institutions.

Arthur Norman Holcombe took his bachelor's and doctor's degrees at Harvard and pursued further studies at Berlin, Munich, Paris and London, before returning to his *alma mater* as Professor of Government. He has served the government of his native state, Massachusetts, and the federal government as an expert member of various commissions and boards, and has written scholarly volumes on *Public Ownership of Telephones; State Government in the United States; Foundations of the Modern Commonwealth; The Political Parties of Today;* and *The Chinese Revolution.*

Pierre Jay, presiding officer at the Second Session, was elected, at a relatively early age, Vice-President of the Old Colony Trust Company of Boston. Three years later, in 1906, he became Bank Commissioner of Massachusetts. In 1909 he came to New York City as Vice-President of the Manhattan Company. From 1914 to 1926 he was with the Federal Reserve Bank of New York as Federal Reserve Agent and Chairman of the Board. After the Dawes Plan was adopted, he was called upon to serve, from 1927 until the inauguration of the New Plan, as a member of the Transfer Committee and Deputy Agent General for Reparation Payments.

Russell C. Leffingwell, presiding officer at the First Session, studied law at Columbia University, and entered upon the practice of law in New York in 1902, becoming in 1907 a member of the distinguished firm of Cravath and Henderson. With America's entry into the World War he interrupted his legal career in order to serve as assistant secretary of the treasury. Not until 1920 did he resign this office, to resume his legal practice as member of the firm of Cravath, Henderson, Leffingwell and de Gersdorff. Since 1923 he has been a member of J. P. Morgan and Company.

Wesley C. Mitchell, having studied political economy at the universities of Chicago, Halle and Vienna, returned to Chicago in the year 1900 to teach his chosen subject, but was soon called to the University of California and subsequently to Columbia University, where he has been Professor of Economics from 1914 to 1919 and since 1922. He became Director of Research of the National Bureau of Economic Research in 1919 and Chairman of the Social Science Research Council in 1927. He is a former president of the American Economic Association and of the American Statistical Association, an honorary fellow of the Royal Statistical Society, and a director of the Council on Foreign Relations, the New School for Social Research and other scientific organizations. Among his writings those best known in connection with the subject here under discussion are the volumes on *Business Cycles* (1913) and *Business Cycles, the Problem and Its Setting* (1927).

Paul Scheffer is a distinguished German journalist who lived in Russia seven years as representative of a great newspaper, the *Berliner Tageblatt.* He is now the Washington correspondent of that paper.

Carl Snyder, now with the Federal Reserve Bank of New York, was formerly an editorial writer for the *Washington Post*, and become very widely known as the author of *New Conceptions in Science* (1904) and *The World Machine* (1907); nevertheless he is now even more distinguished as an economist and statistician, not only because of his volumes on *American Railways as Investments* (1907), and *Business*

Cycles and Business Measurements (1927), but perhaps even more because of his numerous and important contributions to leading economic journals. He was elected to the presidency of the American Statistical Association in 1928. Readers of the Academy's publications will recall his contribution on "New Measures of the Relations of Credit and Trade" in the PROCEEDINGS for January, 1930.

JOHN H. WILLIAMS, born in Wales, took his A.B. at Brown and his Ph.D. at Harvard. As traveling fellow from Harvard he studied Argentine commercial and currency problems to such good effect that his book on that subject won the Wells prize. He has taught economics at Harvard since 1921, with the exception of one year, when he visited Italy as Westinghouse Exchange Professor. The series of *Annual Studies of the Balance of Payments of the United States* which he inaugurated in 1919 is justly recognized as an important contribution to economic statistics.

LEO WOLMAN has been a teacher of economics at Hobart College, at his *alma mater,* Johns Hopkins, at the University of Michigan and, for more than a decade, at the New School for Social Research in New York. He has recently been appointed Professor of Economics at Columbia University. His productive researches on labor questions, his books on *The Boycott in American Trade Unions* and *The Growth of American Trade Unions,* and his close association with the labor movement as director of research for the Amalgamated Clothing Workers and as a director of the Amalgamated Bank have caused him to be recognized as one of the foremost students of labor problems in America. He has served as special agent for the United States Commission on Industrial Relations (1914) and for the Council of National Defense (1917), as chief of the section on production statistics for the War Industries Board (1918), as an expert on the staff of the American Commission to Negotiate Peace at Paris (1919), as a member of the advisory committee of the Unemployment Conference of 1921, and as a member of the research staff of the National Bureau of Economic Research.

Sincere gratitude is due to the distinguished speakers who made this meeting, as Mr. Jay remarked at its close, " so interesting and memorable ". Likewise the officers of the Academy are deeply grateful for the invaluable advice and the generous aid rendered by the Program Committee, a list of whose members is given below.

WESLEY C. MITCHELL, *Chairman*
ETHEL WARNER, *Director*

WINTHROP W. ALDRICH
JAMES W. ANGELL
WILLIS H. BOOTH
W. RANDOLPH BURGESS
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WILLIAM L. RANSOM
SAMUEL W. REYBURN
GEORGE ROBERTS
EDWIN R. A. SELIGMAN
ALBERT SHAW
PAUL M. WARBURG

PART I

CAUSES OF DEPRESSION [1]

RUSSELL C. LEFFINGWELL
of J. P. Morgan & Co.

I THINK the major causes of the depression in the world at large are: the waste of human life and wealth in the great war; the debts and indemnities and transfers of sovereignty consequent upon the war; and the economic war of tariffs and subsidies which followed and continues to this day.

I think the United States escaped the consequences for a time because, during nearly three years of the great war, she was not a belligerent, so that gold and securities were shipped here from Europe in payment for war supplies. And after the war was over, because the United States alone was able to restore the gold standard promptly, capital fled hither from the paper moneys of Europe.

I think, though, that this was not wealth created, but wealth transferred from Europe to America. The transfer left the world we live in, and must hope in the long run to prosper with —not against—poorer and less able to face the task of rebuilding what the war had destroyed. For during the war we were not adding to the world's wealth, but being well paid for things that were to be blown up and wasted, economically speaking, and subtracted from the world's wealth.

I think too our quickly got, war-got wealth spoiled us a little. We became a nation of spenders and speculators—and invented a new economics to justify our public and private extravagances to the shades of our Puritan ancestors.

And I think the cure for the depression is in hard work and thrift in our private lives; in an effective demand on our governments, national, state and municipal, that *they* too stop squandering our money and reduce our taxes and public debts; and in an effective demand on the governments of all nations, including our own, to *stop this war* of tariffs and subsidies with which they are strangling the world's trade.

[1] Introductory Address at the First Session of the Semi-Annual Meeting (Fifty-first Year) of the Academy of Political Science, April 24, 1931.

I have tried to go back to first principles and to say briefly what seem to me to be the fundamental cause and cure of the depression. There are of course innumerable other factors worthy of most serious attention.

I have the honor of introducing to you a series of most distinguished and learned authorities in economics and politics this morning, who will canvass a part of the great field which is the subject of our session, "Causes of Depression."

Mr. Carl Snyder has been one of the most thoughtful of the students of such problems for many, many years. I remember being told that he was the first to predict scientifically the change in the complexion of world economics which was introduced in the middle nineties by new discoveries of gold and new gold processes. For long years he has been a leader in study and in thought on this subject. Mr. Carl Snyder, of the Federal Reserve Bank of New York!

OVERPRODUCTION AND BUSINESS CYCLES

CARL SNYDER
Federal Reserve Bank of New York

WHEN I dip into economic history I often ask, with the prophet of old: " Is there anything new? " I have lately been reading in a volume that I treasure as an unfailing source of illumination: *Recent Economic Changes.* From a chapter that I think sheds much light on some present-day theorizing, I take this striking paragraph:

> It is of the first importance to note how all the other causes which have been popularly regarded as having directly occasioned the recent depression of trade and industry naturally group themselves about the one great cause, as sequences or derivatives, and as secondary rather than primary; and to the facts and deductions confirmatory of these conclusions attention is next invited.

This " one great cause " was overproduction; and the interest of the quotation lies in its date. It was not last year, or this; it was written more than forty years ago, that is, about 1888, in the midst of the greatest era of railway construction the world has ever known, a period upon which we look back now as one of the highest prosperity, comparable to the wonderful " new era " which recently came to such an untimely end.

But so evident and unquestionable then seemed the fact of a great surplus of production, that the *causes* of this condition were eagerly sought, and a distinguished economist of the times, Emile de Laveleye, was brought to the rescue. To him it was evident that:

> The industrial activity of the greater part of the century has been devoted to fully equipping the civilized countries of the world with economic tools; the work of the future then must be necessarily that of repair and replacement rather than new construction.

And so it was concluded that:

> This mechanical equipment, having at last been made ready, the work of using it for production has, in turn, begun and has been prosecuted

so efficiently that the world has, within recent years, and for the first time, been *saturated*, as it were, with the results of these modern improvements.[1]

What singular illusions! If you glance at the graph of world production shown herewith, you will note that the rate of growth in the next few years, or in the next twenty-five years, differed in almost no discoverable way from that of the quarter-century (and perhaps half-century) preceding.

We have under view then in the idea of "overproduction" an economic concept of long life, impervious alike to doctrinaire logic and, I fear, to statistical proof—a concept which regularly provides the most popular explanation of those disastrous slumps in trade such as we are now passing through.

I

But if we inquire closely into just what is meant by the phrase, confusion begins. What mental concept do we form of this "overproduction"? And just how does it bring on a business depression? Almost absurd to ask? Obviously and very simply: "Too Much"—of this or that or, in the minds of some, "Too Much of Everything." As if the last year, for example, had not given, indeed, overwhelming proof that the world has been producing too much copper, or wheat, or sugar —if not of nearly everything that is useful and enjoyable!

But what is the measure of "Too Much"? How much too much? Is it any definite quantity—a residuum over a fixed amount? Or an excess above some "normal" rate of increase? Or is it a question of both quantity and *price?*

Consider an example. I suppose the star case of "overproduction" at the moment is copper. There is an undoubted excess. But did a foolish attempt to boost the price of copper to twenty-six cents have nothing to do with the present condition of the industry? Is the world's consumption of copper, or any other commodity, fixed and immutable, with no regard to the price? And is there any reason to doubt that even now vast quantities of copper could be sold at, say, six or seven cents? And are we to consider only the producers? Are the great industries that consume the vast quantities of copper

[1] David A. Wells, *Recent Economic Changes*, New York, 1889.

produced crippled because they may now buy copper for ten cents a pound instead of eighteen?

And, in any event, precisely how does an excess of copper, or any other commodity, at a certain price, or an ensuing violent fall in the price, bring about a world-wide industrial crisis?

In 1925 the price of rubber, an equally important product, reached nearly a dollar a pound. In two years the price of rubber had fallen by over seventy-five per cent. Fairly drastic, you will admit. And fair evidence of excess production, at least at that price. But are tens of millions of users of rubber no gainers from this event? And, still more, did this excess of production, or the ensuing fall in the price, then bring on any world-wide commotion, or crisis?

And yet again: the oil industry in 1927 showed signs of marked overproduction; the price of oil fell sharply, and the profits of the oil companies still more so—they dropped by nearly one half. Yet, did this bring on a business depression? Was this or any other country poorer, or deeply disturbed, because it could buy a billion barrels and more of oil at a reduced price?

And so on all through the long list. Where is the industry that even in times of the highest prosperity can always sell all it can or does produce, at what price it pleases? Is it the coal industry, or cotton, or textiles, or steel—which one? What major industry is not incessantly forced, in good times and poor times, to adjust its prices and its production schedules to the current demand? And where is the evidence that these incessant readjustments precipitate a well-nigh universal crisis?

But, it is said, certain great industries are quite unable, from their nature, to make prompt adjustment—the farm industry, especially. And here overproduction may have serious consequences for the rest of the world. What consequences? That the urban and factory population, now four times as large, shall pay less for its food? In the United States, still the greatest of agricultural nations, farm buying is now not one-fifth of the total. Shall the other four-fifths have no cakes and ale thereby?

II

Consider now the problem of general overproduction in just such a broad field as this. In the last year or more the prices not only of wheat but of corn, cattle and hogs, and many other foods, have been falling, in many cases falling violently. Clear evidence of overproduction? There has been no marked increase of food production as a whole. Has then the world suddenly discovered it has a vast surplus of food, and especially of the finest kinds? Do we forget that half the population of the world lives on far less than what we should think of as one fair meal a day? More than a billion human beings live on a meagre dole of rice or its like, that is, at near the dead line of subsistence. Hundreds of millions in India and China maintain families on the equivalent of something like twelve or fifteen cents per day; and almost every year some millions die of hunger, and many are dying now. For these hundreds of millions of sober, industrious people, the idea of too much food in the world would seem a mockery.

But, it will be said: all this is absurd, because these wretched people who have so little to eat are on a very low economic plane. They have no money to buy food with, no goods to offer in exchange. Of course, they say, it is fantastic in the present state of the world to talk about overproduction of food, in the abstract. The trouble is a vast excess of wheat. How vast? On the best estimates, an increase in the normal carry-over equivalent to about three weeks' normal consumption. And this modest excess brings this important commodity to the lowest prices in thirty years.

But if the theory is good it must apply generally. How about corn? And cattle? And hogs? Nowhere, so far as I know, has anyone suggested that in these important lines there has been serious overproduction. On the contrary, in the case of corn we have one of the shortest crops on record, a crop that should, on old Gregory King's law, put the price up by one-half, or by a hundred per cent, above its average. Yet the price of corn has fallen almost as violently as the price of wheat. And so, latterly, have the prices of cattle and hogs. Why?

The answer is, of course, that the overproduction of many other things has brought on a serious disturbance or an utter

breakdown of the whole economic mechanism; and, so they say, the price of all other things must fall just as that of the things which are overproduced. On what theory?

This country pays to other countries in the aggregate billions of dollars for their coffee, sugar, rubber, tin, silk and the like. All these things have had within the last year or two the most drastic average decline in price, outside of post-war conditions, of which we have any record. Mostly we may now buy these things at about "half price." That would be a fair average for the things I have mentioned. So, instead of paying, say, two billions for our supply of these things, we may now buy them for a billion or so. This would mean the release of around a billion, in cash or credit, for the purchase of other things; and so, one might think, tend to *raise* the prices of other goods.

And note that this billion or more is added to our *surplus* funds, for all our imports must be paid for with our surplus of goods, or of cash. This, in the minds of many of our foreign trade or international balance theorists is all-important. I am not sure that it is. But it is certainly clear that for the moment the United States can buy the foreign materials which it normally needs for at least a billion or more of dollars less than it could two years ago.

Now, is it argued that we, that is, these United States, are suddenly bankrupt, or that *our* capacity to buy, or to produce goods for exchange, has been seriously reduced? That, at least, is absurd. So far from that, we know definitely that something like eighty-five to ninety per cent of our total normal consumption, and the supply of that demand, is still going on, even in these times of extreme depression.

Or is it supposed that we have depression because we cannot sell *our* goods abroad? First of all, our export trade is relatively small, and fairly steady for the most part; and there was no evidence, before the crisis, of any marked slump in our exports.

It is to be noted in passing that the larger part of the commodities in which there is supposed to have been spectacular overproduction comes from outside of the United States. It would seem to follow, therefore, that it could scarcely be overproduction here *in this country* which has brought about the present world-wide depression and catastrophic fall in

prices. And yet I believe there is decisive evidence that it actually was conditions and disturbances in these United States which were largely responsible for this economic disaster. But these conditions appear to have been rather of a monetary and financial character—a saturnalia of speculation—than related to the colossal physical product of this country, or of others.

As we shall see, the evidence for any unusual increase or growth in this physical product, preceding the crisis, either in 1929 or in the years before that, seems lacking.

Further, as to the drastic price declines, for example, in corn, and cattle, and hogs, as well as in wheat. Our production of all these things is largely consumed within this country. Our exports of them are relatively small. If, then, the decline in the prices of rubber, sugar, silk, tin and all the rest left us with a billion of surplus cash with which to buy other things, the decline in the prices of our cattle, corn and hogs could scarcely have been due to this fact—at least, so far as my limited mind can see.

Our United States have become a prodigious power alike for production, for consumption, and in wealth and income of every sort. This is a commonplace; but it is still a little astounding to consider that we produce, and consume, almost as much of goods as all the rest of the commercial nations put together. It is not an idle circumstance that we have the unthinkable total of something like twenty-five million motor cars in service, that is to say, about three-quarters of all there are on earth. It is, therefore, *our* consumption, *our* buying, *our* prosperity, *our* financial conditions, which very largely determine not only our own economic and financial health but that of the whole world. This is the new fact which, it seems to me, the theory of overproduction disregards.

Two further facts: first, we are far the world's largest buyers of just the commodities in which there is supposed to have been the most obvious overproduction, the rubber, the coffee, the sugar, and all the rest. (Amazing to think that we consume half the coffee produced!) Second, in the main the countries which produce these particular commodities are not large buyers of our exports. Our principal customers are Canada, Great Britain, Germany and France; and not Brazil, Cuba, Java, the Malay States, Australia and the like.

Now the evidence is that the present depression is more severe here in the United States than in perhaps any other large country. But it would be fantastic to imagine that it was the reduced purchasing power of these other countries in which there was some evidence of overproduction, *outside* the United States, which led to the crisis *in* the United States. And yet, driven home, this is substantially the argument for "overproduction" as a major cause of this depression.

III

There is yet another school which finds the source of evil here at home. That is what I call the school of "Too High Living." Judging from recent utterances, this seems to be the special obsession of many of our bankers. Distressed apparently at their own indigence, they seem disturbed at what they imagine to have been the vast prosperity and extravagance witnessed within the last few years, especially the prosperity and extravagance of the millions of workers in our cities and on our farms. And this, they hold, overstimulated industry and led to overproduction.

It is true that many of our workers, especially in the building trades, had been enjoying unexampled wages. But these were largely in the skilled trades in which the supply of carpenters, bricklayers, plumbers and electricians is limited. And the building industry, in turn, is the most variable that we have. Taken over twenty-year periods, it is more than doubtful if the incomes of these artisans are phenomenally above those of factory and office workers. Without much doubt our recent building boom was the greatest that this or any other nation ever saw. It led to unusually full employment in all related lines, and imparted a generally buoyant tone to industry, as it always does. All this, in turn, led to unusually heavy buying of automobiles, which further stimulated the *élan* of industry.

But it is still difficult to find that the incomprehensibly vast total of the nation's industrial product in these years rose markedly, if any, above the normal long-time rate of increase. It was undoubtedly at the practicable maximum rate.

But I am, for one, unable to understand why such maximum industrial activity necessarily leads to disaster. This is

undoubtedly a belief shared by wide numbers of educated people, and by some economists. Industry, they say, gets "out of balance." But they have in their minds, I believe, a quite mistaken, or distorted, picture of our national growth. This maximum activity means a corresponding creation of national wealth. Of this it would seem there can be no question. In what we called the building "boom" there was an expenditure of tens of billions for new plants, new buildings, new homes; and parallel with this a net increase of around twenty millions of motor cars and trucks, involving many more billions of expenditure.

Are all these things a liability? Or in what way do they create a liability? Goods are exchanged for goods; in the large, no other way. More production means a larger exchange, and more wealth. How else could the history of the last ten years have been written? Precisely in this period we were reducing our borrowings from abroad and loaning between ten and twelve billions to other countries.

Steadily through a hundred years and more we have been adding to our industrial equipment, building railroads and highways, adding to our means of production, and increasing our per capita expenditure, alike for comforts and for so-called luxuries. What are the inherent forces in this amazing and for the most part steady growth which call for such a prostration of industry as, for example, at the present moment?

It is the fashion to believe, always in prosperous periods, that there is a huge increase of indebtedness. But how, in turn, could there be such an increase without a corresponding gain in the capital and savings to lend? Our savings deposits and our capital issues were likewise increasing at a somewhat unusual rate, and this was undoubtedly aided and stimulated by monetary inflation. But save as it engenders undue speculation, and many enterprises to some extent premature, it seems doubtful if even this could in itself bring such an arrest of prosperity without some strong external check.

It is the fashion to believe that various devices, like instalment selling, also produce an undue stimulus; perhaps to a mild extent they do. But it is well to remember that even instalment selling is nothing new, and has itself been a long, steady growth, running through more than a century. The

selling of furniture, pianos, farm machinery, encyclopedias, and many other things by this method goes far back. Its rapid extension in the field of motor cars was merely a natural development of long-standing practice.

Further, the huge gain in this instalment paper was in the years of the Great Inflation, from 1916 to 1920, and later; yet, through eight years of prolonged prosperity, our warning prophets harped upon the grave "dangers" of this increase. And the evidence seems to be that now even a degree of unemployment unparalleled in this generation, at least, has so far brought no serious default in payments.

IV

I come now to the more crucial question:

What was, in 1929, the evidence for general or widespread overproduction? Preposterous even to ask! Who does not instantly think of copper, and rubber, and sugar, and coffee, and all the rest?

Let us for the moment grant all of these. Since when was it that in any period, even the most prosperous, there has been no similar overproduction in many lines? Since when has the sugar industry, for example, been so prosperous? Was it in the years just preceding 1929? Even the man in the street knows that the sugar industry has been in a precarious position off and on for the last ten years. That, indeed, seems more or less its chronic condition.

So also with coffee. Did the evident overproduction of coffee appear suddenly in 1929? How long has it been since the valorization scheme and other attempts to bolster prices in this industry were put into effect?

And so with rubber. When was it that the Stevenson Committee was appointed, and the attempt to stabilize rubber production was begun? Was it in 1928, or 1927, or 1926? No, it was in 1922. And when did it end? In 1928.

And so with wheat. Was there a monster wheat crop in 1929? No, that was in 1928. And in the season of 1928-1929, when this record crop was in prospect or in being, did the price of wheat suddenly and violently fall below sixty cents a bushel in the Chicago markets?

Actually the fall in wheat prices then was relatively small,

because the surplus created by the great crop of 1928 was no greater than had been handled very easily and without any world disaster many times before in preceding generations. Precisely, indeed, as in 1923. That year saw an up-to-the-then record world production of wheat following, let it be observed, the most rapid increase in production, in the several years preceding, of which we have any record in a long time. Why no prolonged and drastic depression in the wheat industry *then?* Why not in 1924 or 1925, and only in 1929?

And yet again, when began the deep depression in the cotton industry, and especially in cotton textiles? Was it following any marvelous boom or unprecedented production, in the five years or ten years preceding 1929? Are our memories blank, that we discover the long depression in the textile industry *only* in 1929 or 1930?

So with hides and leather. Who cannot recall that the prices in hides and leather dragged bottom for years on end because of the excess stocks of hides? But this was not in 1927 or 1928. It was all along from 1920. And did this, or all the rest of the long line of depressions, in this industry or that, have any apparent effect upon the prolonged general prosperity of these United States through precisely this period? Why then in 1929?

One would gain the impression that our business men and publicists hold to the naïve belief that in times of prosperity this condition of well-being is universal and, so to speak, 100 per cent through all industry. It never is, it never was. Year in and year out, every year and years on end, in good times and bad, we have depression in this industry or that, and prosperity in others. It is always an endless going up and coming down, in one line after another. And why?

Simply that the tendency to "overproduction" is universal in all industry, and omnipresent save, perchance, precisely in periods of just such acute depression as at the present time.

We seem to forget that practically every industry is endeavoring all the time to produce just a little too much, that is, trying to sell the last bushel or bale or barrel it can. And so the price of practically every staple or product sold freely in the markets is always going up or down, in the endeavor to meet these conditions of overproduction or overstock.

This is that condition which Adam Smith described more than a century and a half ago in his famous phrase, "the higgling of the market." It never ceases and, may I add, it never brought on a general depression. It is precisely the device by which depressions are usually warded off—by which, in a word, the adjustment of each industry to the prevailing supply and demand is achieved; a marvelous device and the only device which has ever been successful in the long run.

In some industries, especially in lines like rubber, or sugar, or coffee, there is a long developmental period, running five, six or seven years from the time of planting to the full fruition. Here, it is needless to say, we have long cyclical swings and long periods of low prices. But when did the world grow poorer, or prosperity grow less, when it could buy some of these materials for less money, and so have more to spend in other lines?

"Ah", do I hear, "this is precisely the rub!" It is not when these individual depressions of different industries come one after another (marching along, as it were, Indian file and in beautiful order); it is when they come all together, pell mell, that general depression comes under view. Unbalanced production, maladjustment, then true overproduction.

V

Meet now what may be called the Accident, or Accumulation, theory of business cycles, and the school which finds beatitude in the blessed word *Konjunktur,* the Mesopotamia of the economic vocabulary. The idea seems to be that there is in industry a kind of indwelling evil providence which at fairly recurrent periods joins together these forces of overproduction to produce a general débâcle. Here we encounter the theory of Accumulated Strains. But just what is this ill-omened influence which brings about the breakdown at some particular time? Is it pure hazard—sheer happenchance? Must we then resign ourselves to malignant fate, for if these things are unpredictable they are uncontrollable? The only possibility of control lies in the ability to foresee and therefore to forefend.

Or is it the *number* of overproductions that is decisive? Is it imagined that, for example, periods of prosperity may bear

the weight of three, four, or some given number of maladjustments and overproductions, as in the case of textiles, and hides and leather, and sugar, and coffee, and rubber, and all the rest within the last ten years; but that one or two added topples over the balance? Do four or five such special instances, let us say, still mean equilibrium while, say, seven mean a crash? This, so far as I am able to make out, seems the essence of the idea. But what, we may ask, produces the magic seven?

"In the beginning", said the tutor of Epicurus, "was chaos." "And whence", said Epicurus, "came chaos?" Are we never to know? Is economics only a kind of theology?

VI

I can only briefly consider the allied questions of Excess Capacity, and what I take to be nearly the same thing, the idea of unbalanced production, or "maladjustments."

So far as I can find out, excess capacity can be a material influence in the business cycle only in two ways. The first is the process of its creation, that is to say, the construction of new plants or the creation of new processes; and, secondly, by utilizing these new plants to bring about "overproduction." The mere existence of idle plants or idle capacity can scarcely be a serious charge upon industry, else the continuous expansion of plants or, if you please, over-building and over-capacity, would not have been the normal characteristic of practically every industry as far back as we are able to inquire.

Like the U. S. Steel Corporation at the present time, nearly every progressive manufacturer or producer is continually adding to his capacity, either by new plants or improved machinery, so as always to be able to take care of any possible increase in his sales, for which he may secretly or consciously hope.

Now these additions to plant and machinery can, it is clear, never be a large charge upon the existing plant or involve any considerable part of the national income. Consider our findings, for example, as to the normal rate of growth of industry, alike in this country and for the world, throughout at least the last half-century and perhaps the last century as well. If this rate in this country has varied but little from an

annual increase, compounded, of about four per cent, then the net increase in the mechanical or productive equipment of the country can only be about the same—for the simple reason that the change from hand labor and the increase in so-called "efficiency" or man-hour product is itself a slow and very steady change which, so far as we can make out, has again not materially varied in the last half-century or so. Most of the insistence upon unusual gains in any given periods, as in the late "new era", merely ignores past history, or builds upon incompetent statistics.

If now the annual industrial product of the country is, very roughly, about equal to the net invested capital—that is, a turnover of somewhere around once a year—then this new plant construction could scarcely ever involve more than something like four or five per cent of our annual national income. And the evidence from the continuous and unending growth of the country is that this process of expansion is not by wild leaps but is itself fairly continuous. So that, save in irregular and rather widely spaced periods of depression, like that of the present moment, this process is always going on at a certain rate.

Now it is easy to conceive, as many do, that the rapid growth of new industries as, for example, motor cars, rayon, radios and the like, stimulated by phenomenal profits, must always lead to overexpansion, and the usual crop of bankruptcies or mergers. In an earlier generation the star instance was new railway construction, which in turn greatly stimulated the steel industry, and the like.

Scarcely anyone would question that these have been a distinctive feature of every period of exuberant activity. But here again we meet the usual problem in economic investigation, of giving proper weights to the several factors involved. These periods of unusual activity and optimism invariably give rise to waves of speculation which, in turn, if they do not actually involve the absorption of credit, invariably end in high interest rates which are prohibitive to profitable merchant borrowing.

So we have never had a period of high prosperity which did not involve a check to credit expansion and therewith, a little later, come to an end. Invariably such periods have meant an

unusual rate of credit expansion. Invariably they have come to an end following a check to this expansion. I have elsewhere dealt with this problem [1] and can only here suggest that without this antecedent excess of credit,these periods of boom appear to be impossible.

In any event, for the present issue it seems clear that overexpansion and overbuilding in any industry showing unusual profits is the normal and usual thing, in good times or indifferent times. The rayon industry, for example, through the eleven years from 1918 to 1929, and right through 1920-1922, showed a simply phenomenal growth, almost a straight-line increase averaging for the whole period about twenty-six per cent per year, compounded. (Yet, what would you imagine was the decline, in 1930, from the peak in 1929? Twenty per cent? Forty per cent? No, it was less than three per cent.)

So, for a long period, with the motor car industry. And endless others. There remains always the question as to why this rapid growth should be checked *at some particular point,* or have supposedly such a disastrous effect in some particular year, like 1929, and not in some previous year. For example, the turning point in the extraordinary growth of the motor car industry, through 1917-1919, was smoothly achieved without any disastrous commotion. And the still more rapid and quite appalling growth of the cigarette industry has almost never had a check. It just goes on and on.

It would seem that these misapprehensions regarding undue or bulbous growth in some particular lines of industry involve a quite inadequate grasp of the immensity of our industries as a whole; or else a curious belief, undoubtedly shared by many business men, in the fragility or sensitivity of this vast industrial machine. Either of these concepts seems untenable in the face of the stupendous total of product, in which the contributions of particular industries are lost; and, second, of its never-ending and unbelievably steady growth.

[1] "The Problem of Prosperity", *Journal of the American Statistical Association,* March, 1929.

"New Measures of the Relations of Credit and Trade", PROCEEDINGS of the Academy of Political Science, New York, January, 1930.

"The Future of Business Cycles", *Annals* of the American Academy of Political and Social Science, May, 1930.

VII

But my main intent in this paper was not to belabor ancient ghosts, but to lay before you some new work undertaken in an attempt to answer, if possible, some of these questions. This is a measure of world production of the great basic commodities over the last half-century or more, that must, if I mistake not, greatly modify our ideas, or fantasies, on the subject under view.

The League of Nations has commendably begun the compilation of a very broad index of world production, but this goes back only to 1923. There is likewise an English index for twenty great basic commodities, going back to 1920. This, so far as I know, is all.

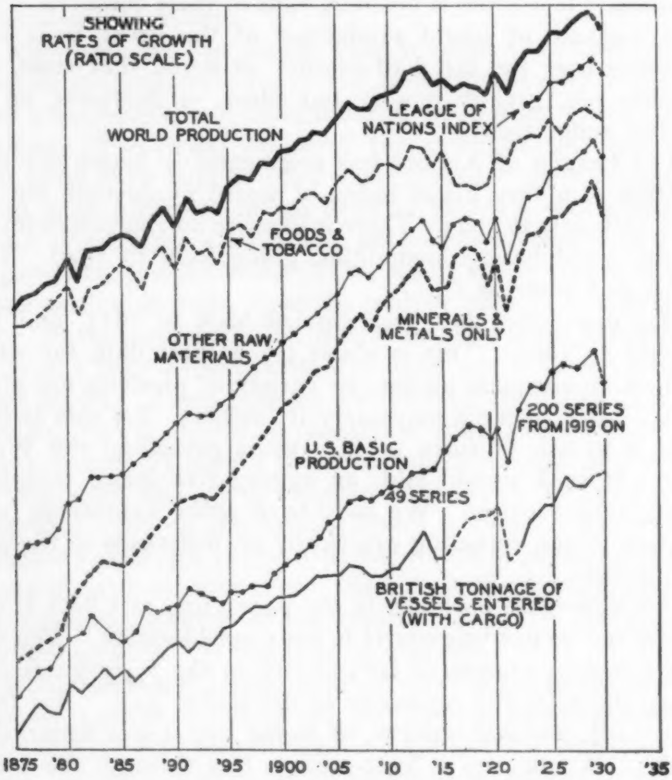
Our new index has been carried back to 1875, and tentatively to 1865. This is about the earliest date for which data on an adequate number or variety of products are available. Later research may carry it further. But this at least gives a stretch of forty or fifty years preceding the World War. It is, I should add, an aggregative index, weighted by 1923-1925 prices. We have tried other weightings, with pre-war prices, revealing practically no difference in the pre-war period.

This aggregate is shown in the upper line of Chart I, and I commend its pre-war course to your consideration. You will note a certain amount of irregularity in the forty years preceding the war, and especially in the earlier part. But from about 1895, you will observe, up to the war it was remarkably steady. If you pass a least-squares line through the entire period you find that the deviations therefrom are extremely small (the extremes not over six per cent).

Next observe a quite remarkable contrast. In the two lines just below are shown, first, the subtotals for the group of Foods and Tobacco only, and below that for Other Raw Materials, including coal, iron, rubber, cotton and the like. In the earlier part of this period the foods group predominates in aggregate value, as you would expect, but slowly other raw materials move upward in aggregate value so that at the present time the two divisions are of nearly equal weight in the composite.

CHART I

AN INDEX OF WORLD PRODUCTION FROM 1875



This diagram shows a new index of total world production of leading basic commodities, together with the two component groups, (1) foodstuffs and tobacco and (2) other raw materials, and also the sub-group, minerals and metals alone. These indexes are weighted aggregates, based on the 1923-25 average prices. A varying number of series were found available, increasing to 30 from 1900 to date. (Russian production excluded.)

With these new indexes of world production, there are shown for comparison the League of Nations index of world production of 62 basic commodities (available from 1923 only), the index of the Federal Reserve Bank of New York of basic production in the United States, and British tonnage of vessels entered with cargo.

Now what is surprising is that the variations shown in the aggregate of world production are largely due to the group of foods, and not to the group of other raw materials—precisely the reverse of what one would be led by current theories to expect. Current theories would suggest, of course, that the wide variables would be in those products relating to industries like building, railway and plant construction and the like, in which wide variability is known; and instead we find that just the reverse is true.

In a word, when we seek the cause of such variability as this aggregative index reveals we find that the dominant influence is the variability in crop conditions, that is to say, broadly, from the weather and not from business conditions. No one would suggest, for example, that it is business conditions that dominate the average yield per acre of wheat, or cotton, or corn. But it is the average yield per acre which largely determines the total of food production, and cotton, not the number of acres planted. This we know from a wide variety of researches by our own Agricultural Department and similar bureaus throughout the world.

Strangely enough, if the productivity of the fields could be given the same stability as that of the mines and furnaces, the oil wells and rubber plantations, then in the forty years preceding the World War we should have a line of rather even growth, with but slight irregularities, up or down, save, for example, as in 1882, or 1893, or 1908 (see the line of "Other Raw Materials").

A further surprise awaits us when we go a step further and segregate from this latter group the minerals and metals—that is, coal, iron, copper, oil and the like. The same regularity of growth with the same sparse interruptions; but the highest rate of increase of all. In brief, what we find is the widest variability in the slowest-growing group (foods and tobacco), and the lowest variability in the fastest-growing—assuredly an unexpected result.

Led largely by our own experience, that periods of heavy building construction of all types (railways or plants or motor cars), are the most salient features of high prosperity and the usual precursors of a crash, one would naturally expect to find these features reproduced in the rate of increase of raw

materials other than foods, and especially in minerals and metals, which form so important a part in building construction. But we do not.

If you study this graph of minerals and metals you find from 1894 to 1908 a stretch of *fourteen years* without a material break. Then a drop of a single year, and a continuation of the same rate of growth straight up to the war. That is, *nineteen years* of practically uniform growth with a single break of twelve months. Was all this unusual or "abnormal"? It was not.

This line of world production of metals and minerals we have been able to carry back into the earlier fifties, and what it reveals is one of the most amazing things, I think, in my experience—a nearly straight line growth for the sixty years preceding the World War, that is, a nearly uniform rate of increase.

But if you observe Chart II closely you will see that it is broken at irregular intervals by little jogs. These jogs represent the crises and depressions which loom so large in our economic history. Bearing in mind then that it is precisely the group of minerals and metals which, in our month-to-month indexes, show the highest variability, the widest perturbations, what then must we infer? It is, I think, that the actual variations in production, outside of the inevitable variations in the yield of the fields, are for the world as a whole extremely small—nothing like what we are accustomed to imagine.

How then could this idea of wide variability, in brief, the whole concept of business cycles, of large amplitude, have arisen?

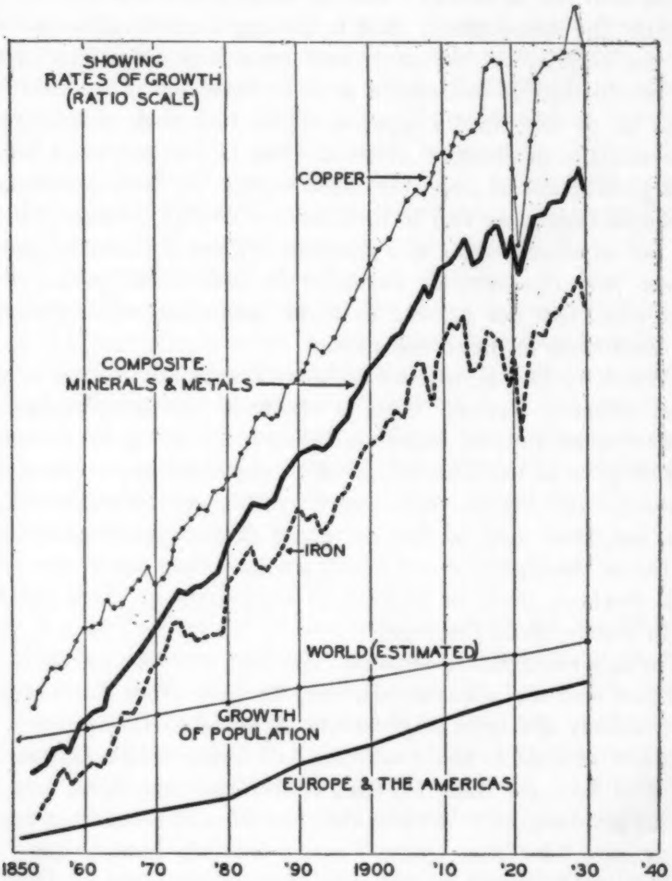
VIII

The solution of this difficulty is, I believe, of really profound importance, for it directly involves the question as to whether the forces which determine business cycles—which create these disastrous depressions—are inherent in industry itself or are quite external to industry and, moreover, are more or less local to each individual country for the time being.

There is no question of the existence of these so-called cycles and perturbations, even though the phrase " cycle " has given

CHART II

Minerals and Metals—World Production



This graph carries back to 1853 the sub-group minerals and metals in our index of world production of basic materials, shown from 1875 only in Chart No. 1. With this, two important components of the group throughout the period, copper and pig iron, are shown, and likewise Professor Willcox's estimate of the growth of the population of the world and of that of Europe and the Americas alone.

to these phenomena a sense of regularity or wavelike character which in reality they do not possess. For our own United States we have now quite excellent measures going back at least into the seventies. All of these measures disclose practically the same thing, that is to say, considerable variations in the activity of industry, and especially in just such types of production as contribute most to building and construction, that is, of steel and copper and the like and, closely related thereto, the production of coal. But if now we mass together the production of precisely these highly variable products into a *world index,* we fail to find these wavelike " cycles," at least so far as annual data will disclose. Clearly then the cause of these perturbations, as revealed in individual countries like our own, can not be due to these industries as a whole, nor to conditions in these industries.

What we find is, instead of wavelike cycles, a kind of staircase effect. Viewed from a distance the graph shows an almost even rate of increase, interrupted by these sharp jogs which give to the line this kind of staircase appearance. But the steps of this staircase are very unevenly distributed. As you see, they may be five or ten or fifteen years apart. And so far as the eighty years which we may thus put under survey will disclose, there is no kind of regularity in these intervals, or in the depth of the jogs.

So this remarkable contrast: the idea of wide cycles in production and trade has arisen very largely from the variations in precisely the type of products included in this graph. But this has related to the production of individual countries. If we had had no data for the individual countries, but only world production, it is clear that the idea of somewhat regular or definite " business cycles " could scarcely have arisen.

The implications of all this seem unescapable. If world production of steel or of copper or of coal, and the like, does not reveal this cyclical character, while the data as to individual countries do disclose such wavelike variations, then these variations must be largely of local character, arising from local conditions, and external to these industries themselves. They can scarcely arise from the steel trade, or the copper industry, or the coal industry as a whole. Therefore it seems to me difficult to believe that business cycles, or crises

and depressions of individual countries, can be due to overproduction in particular industries.

It is true that we have at the present time perhaps the most closely synchronous world-wide depression of which we have definite record, excepting only 1921. But if these two are the most striking instances in three-quarters of a century, and their universality has marked them off so distinctly from other crises, then we should be led to refer the universality to some cause or causes operative in these two latter crises, which did not exist so clearly in former years. This generating cause could then plainly not be overproduction, since this hypothesis is nearly the oldest we have and was not new to Karl Marx, when he issued the famous *Communist Manifesto* of 1848.

Moreover, the very character of the sharp jog-like interruptions to this amazingly even rate of growth seems equally to rule out the theory of overproduction as a generating cause, since it is difficult to understand what there is in the nature of industry itself which should bring about these crises at such varying intervals, now of five years, then of ten, then of fifteen, with no sequence or order. Surely this would be straining the limits of imagination.

IX

May I note in passing the amazing contours of the World War period. Do we find any enormous stimulation in the production of steel, coal, and all the things for which there were the most intense war demands? Just the reverse—a sharp *arrest* of the normal increase, which was not resumed until four or five years after the war had closed. I think we may trust the results, though we shared your astonishment when they were revealed.

What was true of minerals and metals was equally true of other raw materials and likewise of farm products. Practically nowhere did the war mean an enormous stimulation of production; it meant, on the contrary, what appears to have been the most prolonged and fateful arrest of normal increase in at least a hundred years. Again a negation of those fanciful ideas and beautiful thoughts which make up so large a part of popular writing and thinking.

I have said the most serious arrest of growth in a hundred

years. Our broad Index of World Production goes back only a little more than half a century. But data for the other half are, I think, adequate to indicate that the findings for the forty years preceding the World War were characteristic and representative for a period of at least half a century back of this, if not more.

Some of the material in support of this is shown in Chart III, of a half-dozen representative lines of industry, back for a full century. You will note that even many of the individual series show little change in the rate of growth as far back as measures are obtainable. Not always. Steel, for example, had, naturally, a very rapid growth after the introduction of the Bessemer process. The production of cotton, on the other hand, grew very slowly up to about 1850. And so with some others.

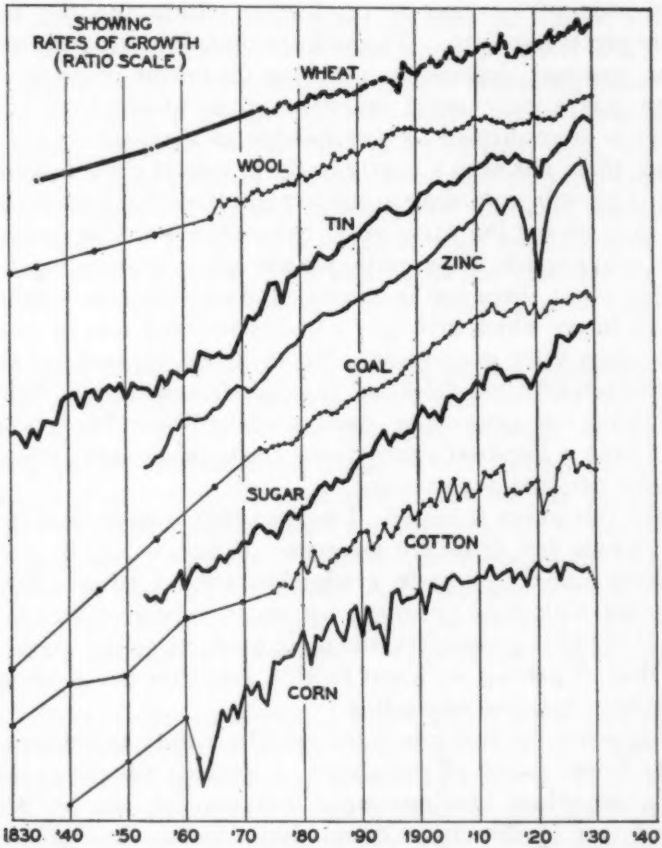
But in general there seems little reason to suppose that so far back as at least a hundred years ago the normal or average rate of increase in the world's product of basic materials differed materially from what it was before the war, and has been in the last few years. And observe the astonishing fact as to what would have been the aggregate of this production today, if there had been no World War. Not less, but vastly more! Particularly in just those lines which the war was supposed to have stimulated most. If, for example, the forty years rate of growth in the production of minerals and metals, i. e., "producer goods", preceding the war, could have been continued without a break, we should be today producing more than half again as much as even in 1928 or 1929.

In other words, in practically every line—with two or three notable exceptions — the price of the war was a blasting paralysis of growth from which apparently we have only recently recovered, and which will apparently never be made up. This was, so far as we may judge, a lasting loss!

As to the extent of that loss, to date, I have attempted a rude estimate. Of course only an approximation is possible. But if we measure the deficit of the actual aggregate values from the normal line of increase, continued from 1915, the cumulation of this deficit, in the fifteen years which have since elapsed, would already amount to nearly 200 billions in our money. This is for raw materials alone. Add as much more

CHART III

WORLD PRODUCTION OF BASIC COMMODITIES FROM 1830



The accompanying chart is designed to show the persistent long-time growth over a century in the volume of world production of leading basic commodities. It was found possible, as is indicated on the diagram, to carry back by ten or twenty-year periods a number of the series prior to their availability annually. (Russian production is here excluded.)

for the fabrication of these products, and the total would be nearly 400 billions. This was the real cost of the war, to date, and not the nominal or paper cost, shown by the budgets and the debts of the nations.

Note now the further and singular fact of a return to this same rate of increase in production within the five or six years preceding 1930. You will see that, following the world-wide post-war depression, reaching its lowest point in 1921, there was a very rapid recovery up to about 1923. Since 1923, as is confirmed by the League of Nations' very broad index, there has been a nearly uniform rate of growth, and this rate of growth, according to our computations, has been precisely the same as for the forty years before the war's beginning.

In other words, apparently, we are led to this pregnant conclusion: that there are in modern industry and technique inherent forces which make for a nearly uniform rate of growth, generation after generation. No evidence appears, so far as careful research has disclosed, that this has materially differed, save in the one spectacular instance of the World War, through more than a hundred years, from a rate of growth very close to three per cent per annum.

Will this never change? I suspect that it may, that it will very slowly but definitely increase. Why?

These indexes of basic production are, of course, heavily weighted with food products, for up to very recently, to our own immediate generation, the main business of the world was still that of getting sufficient food, a feat that the acute mind of Malthus believed impossible.

This seems the first era in the world's history to achieve, for a very broad extent of population, a genuine adequacy, a fact whose important bearings were first pointed out by Simon Patten, one of the ablest economists America has produced. But this exists only for a limited part of the world's population, hardly one-third of it. Therefore, there seems little reason to suppose that for a long time to come the rate of increase in food production (about 2¼ per cent per annum) will materially change. Gradually through this increase the world's entire population, which probably gains at less than one per cent per annum, as Professor Willcox believes, will acquire enough food for what the Western World considers

adequate subsistence. Widespread starvation, once a universal characteristic, intermittently, for all the peoples of the earth, and still so for more than half of them, will slowly disappear.

But the growth of other products has been nearly twice as fast as that of food. For all other raw materials than food, the rate of increase has been something like four per cent or a little more. This means that slowly these other products will gain the predominance. Their total value today seems less than that of food products; in another generation, say thirty years from now, it may be much more. The effect of this, then, will be that, if the rate of increase in food production does not materially decline, and the increase in other raw products, so rudely interrupted by a savage and imbecile war, continues at the same rate as in pre-war days and as in the last five or six years, then the rate of increase in total production will slowly rise.

The implications of this, you will agree, are immense. A slightly greater rate of increase in its total of product, continued steadily, so far as we can find, through at least a century, has slowly but surely made of our United States the richest, in every sense the most opulent, nation the world has ever known. This has been no sudden creation, is the result of no imaginary " new era." There is no evidence that I have been able to find, which would show for any decennium a materially greater rate of gain, one than another. May we consign the fantasy of " new eras " to the museum of economic curiosities?

But there is some evidence, I believe, that from just about a hundred years ago, with the incoming of steam power, we did begin a kind of new era, at least in some aspects. Perhaps I err, even in this. I could offer no adequate proof. But at least this seems certain, that the marvelous advance of the last hundred years has continued at such an amazingly even rate that, for one, I can see no reason why this rate of growth should decline; rather, as I have said, the reverse.

What is the unescapable implication? Clearly that in another generation or so these United States will be so fabulously wealthy, and their wealth and income so well distributed, that scarcely anyone will feel it worth while just to be rich.

X

Consider now, if you please, these findings in their bearings on the problem of the business cycle. If these rates of increase here depicted are a reality, and reveal for the most part but a slight variability—further, that the checks or stoppages to this even rate of growth come at extremely variable periods, five to fourteen years—then does it seem probable that herein can lie the *causes* of economic crises and depressions? In the light of these investigations, what becomes of the prevailing ideas of overproduction, or ill-balanced production, or maladjustments, and their supposedly baleful effects?

Consider the last five or six years, to 1930. Therein the rate of industrial growth, so far as we may measure it, has been substantially identical with that of the pre-war average rate of growth. And this was true not only for the world, but for what is now the most important single unit of the world, these United States. I can find little evidence that the rate of increase in production, preceding the crash of 1929, materially differed from this normal rate of increase, either in the preceding year or three or five years. The idea of an unusual rise in total production, preceding the crisis, was, so far as I can find, a fiction.

What was true of production as a whole appears to have been true of by far the larger number of the component industries, with a few spectacular exceptions familiar even to the man in the street, set against the great majority. And even the exceptions were not so outstanding. We have plotted the growth of all the leading basic products, and this is the central fact they reveal:

> *In hardly any instance was there a rate of increase in 1929 over 1928, or in the average growth from 1925 to 1929, that cannot be matched within the last ten or fifteen years preceding, and with no such economic convulsion following.*

We know, moreover, there was no great piling up of stocks or inventories in recent years, or in 1929; that was the incessant iteration of almost every writer straight up to the crash.

Then, as always, and only then, did the stalking-horse of "overproduction" enter the scene.

It is perfectly true that the rate of consumption, the demand, for any given product *may* suddenly and abruptly decline. But we know that, as a matter of fact, such instances are rare; and still more rarely come all in a bunch. That would be a true *Konjunktur*.

I do not know how far these computations and measurements will carry conviction. I am aware that they will not be over-welcome, for even our economic world loves its toys. But it is only through painstaking measurements that any real advance is possible, or that we may restrain in some degree that unbounded play of fantasy to which the human mind is so prone.

Remarks by the Chairman

Chairman Leffingwell: We are all very grateful to Mr. Snyder for delivering to us such an interesting speech and showing us such illuminating charts. For one I accept it, Mr. Snyder, with the condition that you also print and distribute to us the paper that you wrote and did not read. I haven't had enough. There is no ghost in the ancient and somewhat ruined castle of economics that so haunts men's minds as the ghost of overproduction. I am glad that Mr. Snyder has exorcised it again. When we think of the poverty and distress which is epidemic today, but is always endemic among the races of mankind, it is an affront to our common sense and our common humanity to attribute that to overproduction.

I have the honor to introduce to you Professor Arthur Norman Holcombe, of Harvard University, who will talk to us about "Political Insecurity as a Factor in Business Depression."

POLITICAL INSECURITY AS A FACTOR IN BUSINESS DEPRESSION

ARTHUR NORMAN HOLCOMBE
Professor of Government, Harvard University

IN the time that is at my disposal I will attempt to make only three points, and since that time is limited I will state those points at the outset, lest at the end I become involved in inadequate terminal facilities and fail to get them all in. The three points which I submit to your consideration are these: In the first place, political insecurity is not only bad for business in the country whose government is insecure, but also, wherever that country may be, it is bad for American business.

The second proposition is this: Political insecurity, wherever it may be, is one of the important obstacles in the way of preventing the recurrence of grave business depressions.

And the third is: That forcible intervention by our government in the affairs of a foreign country for the purpose of making its government more secure, is a specious remedy. Its advantages may be alluring, but in my judgment they are easily overestimated. I think they have been commonly overestimated by our responsible leaders in the past.

If I may interpose a comment upon a recent development in public policy at this point, I profoundly believe that the recent decision of the government at Washington to withdraw our marines from the interior of Nicaragua is one which should be warmly applauded by discerning Americans.

In support of my first proposition, it would be easy to show that political insecurity abroad is bad for American business. I am not going to attempt to demonstrate that, however; I will merely illustrate it. Let us consider the evidence afforded by the bond ratings of securities issued by countries which have borrowed money in the American money market. We can divide those countries into nations with comparatively secure governments on the one hand, and on the other, nations with relatively insecure governments. It is easy to see the

difference between a government which is really secure and one which is plainly insecure. I admit that it is difficult to draw the line between the one group and the other group, for there will be countries which will come close to the line, wherever that line be drawn, and the classification will seem arbitrary; but it is convenient to make the classification. I will apply it to thirty-five countries which have borrowed money in our markets in recent years, and whose securities are actively dealt in on the New York Stock Exchange or the Curb.

Of those thirty-five countries—and they include all the leading countries which have borrowed American capital—I put eighteen in the first class, countries with comparatively stable governments, and I put seventeen in the second class, countries with comparatively insecure governments.

What is the basis for the distinction? Well, it is arbitrary. It has to be arbitrary in order to be tangible and specific. In the second class of countries with insecure governments I have put all those in which there have been revolutions by force and violence since January 1, 1920, or in which the governments which have maintained themselves in power during the subsequent period have relied largely upon violence or intimidation. The countries with governments which have not been overthrown in this period and have not relied so largely on force for their existence go in the first class.

The securities of all these governments are rated by various statistical agencies, but I will use the ratings of the Standard Statistics Company. Their ratings of government bonds (which are the only securities of which I now speak), are more conservative than others known to me, and I believe on the whole have stood the test of recent events better than others.

What do the ratings show? Of the eighteen countries with secure governments, a majority are rated A-1 or A-1 plus; no government in this class has a security on the New York Stock Exchange rated at less than B-1, and only one of them has that rating, the little Baltic republic of Estonia.

Turning to the seventeen countries with insecure governments, according to my classification, I find that a majority of them are represented by securities rated at B-1 or less, and two of them have no rating at all in the Standard Statistics

Service. I am quoting from the most recent issue of its ratings, that for March, 1931. To repeat, a majority of the insecure government issues are rated at B-1 or less and none in this class is rated as high as A-1. The evidence shows that the countries with the insecure governments are the countries with poor credit. Well, we knew that in advance. I have merely given you a measure of it, but the measure of it is strikingly significant.

The poor credit of a foreign government is a fact in which we are concerned. It is easy for Americans to shrug their shoulders and point to a foreign country and say, "Too bad that its credit should be so poor, but what difference does that make to us, our rating and credit is good." It is not a fact to be disposed of so easily. Let me take one foreign country with poor credit, a country which I chanced to visit a few years ago, and in which I was profoundly impressed, as every visitor must be, with the immense potentialities for the profitable investment of capital — namely, China. Suppose, if your imagination is equal to this flight of fancy, that China had today a public credit as high as that of its neighbors, say Japan or Siam. Would that make no difference to us? I venture the assertion that within a short space of time American capitalists could invest in China, under that hypothesis, a billion dollars, with every reasonable prospect of a profitable return to the borrower and to the lender alike. What a difference it would make to us if we could invest a billion dollars in that country at such a time as the present! In the first instance, the immediate and direct result of the investment would be the movement of American capital goods on a large scale across the Pacific. The more remote advantages are perhaps even greater, for such an investment of capital goods would immensely raise the purchasing power of the population of China and greatly increase the demand for consumers' goods of American production. Not merely automobiles, trucks, road-making machinery, railway equipment and such products, but also cigarettes, kerosene, chewing gum, sewing machines and all manner of American products would be sold in great volume, if—and we must admit it is a great "if"—China's public credit were equal to that of her neighbors.

We cannot accept the proposition that the low public credit

of a foreign country is of concern only to itself. On the contrary, it is of great concern to us. However, you may say, "That may be all very well, but it has nothing to do with the causes or the cure for business depression. It may be said that the poor credit of a foreign country with an insecure government is, to be sure, bad for business. It is bad for business in good times as well as in bad times. That being so, it is not a fact of special concern in connection with business depressions; it is a fact of general concern." Let us examine that proposition more closely.

I have not the time, nor, I must admit, have I the evidence to demonstrate beyond possibility of contravention the second proposition which I have laid down. Nevertheless both a theoretical analysis of that proposition and such evidence as we have point in the same direction. Suppose we consider government (as we should, probably, when discussing political insecurity in connection with business depression), as a kind of business organization, and consequently treat it as one of the factors in production. What then are the products of government? They are mostly, though not wholly, intangible; but we can enumerate them. The great products of government, regarded as a kind of business organization, are five in number: first, justice, intangible but highly important; secondly, internal order, also intangible but highly important; thirdly, national security, again an intangible but highly important product; fourthly, a variety of tangible services which can be subsumed under the general head of promoting the general welfare, or securing prosperity; and fifthly, the blessings of liberty.

Now, if a comparison be made between two countries, one of which has a secure government, and the other an insecure one, it is obvious that the insecure government has much the less valuable products, and the greater the insecurity the less the value of the products. As regards justice, for instance, the insecure government by definition has to rely more largely than the secure one on violence and intimidation, and where such methods are employed justice must be far more imperfect.

Or consider domestic order as a product of government. There is an appearance of order under a strongly seated despotism or dictatorship, but that appearance may be illusory,

for the order depends upon the pressure from above, and that depends upon the dictator, and that depends in turn upon his life, and his life may hang by a hair. So long, therefore, as there is uncertainty concerning the future of the dictatorship, there is uncertainty concerning the maintenance of order. The free republican peoples often seem more disorderly than well disciplined countries under a dictatorship, but in time of stress the order of the country which springs largely from the good will of its people toward its government will prove far more durable than the order which is the result of violence and intimidation from above.

Or consider the case of national security against foreign attack. The same comparison holds true. So also of the promotion of the general welfare. The dictatorship when first established may often give a stimulus to business, but is always subject to the uncertainties that accompany that form of political organization. As for the blessings of liberty, there is no pretense that dictatorships and insecure governments of that kind are greatly concerned with the supply of such blessings. The greater the insecurity the less the value of the product, a reflection which suggests that insecure governments become still less secure in times of business depression.

Turning from a theoretical analysis to the evidence, such as it is, the first bit of evidence is afforded by the revision in times of business depression of the ratings of securities issued by foreign governments which have borrowed in the American money market. Let us compare the ratings of last month for the securities of the thirty-five countries already referred to with the ratings of a year ago, using the same system of ratings, that of the Standard Statistics Service. During the intervening twelve months, seven of the thirty-five countries have seen their ratings reduced, in some cases radically reduced. Two of these, namely Germany and Australia, are countries with comparatively secure governments, and five are countries with relatively insecure governments. Now if insecurity of government were a factor which affected business in a constant ratio in good times and in bad, one would not, I think, expect to find so many downward revisions of bond ratings in a time of stress; nor such a large proportion of them among the issues of insecure governments; but the fact is that

hard times are hard for insecure governments as well as for other kinds of business, and the harder the times the more insecure those governments seem to become. In short, the effect of depression is cumulative upon the credit or the discredit of the government which is insecure.

If this be the proper interpretation of that particular set of facts, then government insecurity is a circumstance of importance in the business cycle. I hesitate to talk about business cycles in the light of the remarks of the last speaker,[1] but at any rate the phrase is familiar to you; you understand what I have in mind. The bottom of the business depression is, I believe, farther away from the peak in the prosperous part of the cycle because of the fact that there are in the world many insecure governments.

Further evidence as to the relationship between governmental insecurity and the vicissitudes of business is afforded by the yield of government bonds. Let us take the current income in dollars on the bonds of the eighteen countries with secure governments and compare their showing over the last year with the yield on the bonds of the countries with insecure governments. For the eighteen secure governments the average yield in February, 1930, on the date which I happened to take, of the issues actively traded in on the New York markets was 5.7 per cent, or a little less than that. A year later, in March, 1931, the average yield on the securities of these same governments with stable institutions had gone up barely to 6 per cent.

What was the situation in the countries with insecure governments? In February, 1930, the average yield was 7.4 per cent as against 5.7 for the first group, and in March, 1931, the average yield was 9.6 per cent. Thus the difference between the yields of the securities issued by the countries with stable governments and the yields of those issued by the countries with insecure governments was much wider after a year of depression than it had been at the outset of that period. In computing the yield of the securities in the second group I left out three which yielded nothing, and which of course could not be included in the calculation. The real situation

[1] Mr. Carl Snyder, *cf. supra.*

reveals an even more striking disparity than the figures would suggest. In short, the statistical analysis points in the same direction, so far as figures are available, as the theoretical analysis of the situation. Political insecurity is one of the important obstacles to the prevention of the recurrence of grave business depressions.

The third point that I wish to make concerns the remedy often suggested for governmental insecurity abroad, particularly if the country is not too strong and powerful—forcible intervention. In the past our government, like that of other great Powers, has pursued the policy of intervention where the conditions seemed favorable. The argument is that by forcible intervention we make the insecure government more secure. It must be admitted that there is something attractive about the argument. The immediate results of forcible intervention appear to be good. Tranquillity is restored, the government stabilized for the time being, and apparently business thereby is promoted. But that is only the immediate result. The long-time result, though more remote and more obscure, ought not to be left out of consideration, especially since the long-time result appears to be in many cases directly contrary to the immediate result. Forcible intervention temporarily makes the government more secure, but in the long run fails of that effect, because it deprives the government so protected of the natural support desirable from the opinion of its own people. Under such circumstances forcible intervention is a remedy which requires constant increase in the amount of the dose. Intervention with small forces has to be followed by intervention with larger forces, if the result is to be maintained. Therefore it seems to me that a radically different remedy is a much more promising one.

The real foundation of any well organized state lies in the good opinion of the people of that state for its institutions and its rulers, and in the long run the good will of the people must be built upon conviction; it will not respond to drastic stimulants like forcible intervention.

If I were to suggest a remedy—and I hesitate to do so, for it is an academic remedy and it will surely bring down upon my head the maledictions of the practical man—which would improve the situation in the long run, I would say, withdraw

our marines and replace them with school teachers. But I recognize that this is a purely academic and visionary proposal. We cannot expect it to be adopted by those responsible for the conduct of our affairs. Our leaders at Washington can hardly be expected to look ahead more than four years at a time. Our business leaders in New York, too, have to render a public account at least once every twelve months. Such men cannot reasonably be expected to take a great interest in a remedy whose results will only begin to appear in substantial measure at the end of a whole generation, and we do not ask it of them. But we may ask this: Let us go easy with forcible intervention. As an alternative let us discourage, wherever there is a choice before us, dictatorship and governments founded upon force and violence. Let us encourage truly republican forms of government. Now don't ask me so near the end of my time to tell you precisely what is a republican form of government. That is no enterprise upon which I should embark at this moment. Suffice it to say, that I do not mean by republican merely a country without a king. Our friends, the Canadians, are the subjects of a king and are proud of their loyalty to George V, yet I believe Canada is as truly republican, in the sense I have in mind, as any so-called republic. King George V, if we may believe what we read in the newspapers, exerts a much greater influence in the elections of the American city of Chicago than in those of Toronto and Montreal. When I speak of the republican form of government, I really mean not the form but the substance of republican government. The republican substance is the stuff out of which alone an orderly world can be created. That is the kind of world which seekers after political security and continuous prosperity for American business must strive to build.

Remarks by the Chairman

Chairman Leffingwell: I am sure we all agree in accepting Professor Holcombe's modest description of himself as a pinch-hitter. He was a pinch-hitter, and he hit a home run. It is a matter of great grief to us nevertheless that Professor Shotwell should have been unable to be with us, and I hope I am able to promise that

the paper he would have read will appear in the PROCEEDINGS of the Academy.[1]

If I may go back and make a somewhat timid claim to speak as a practical man I should like to say that Professor Holcombe left the practical man with nothing to say except that he agrees completely. The American people having grown very rich, being temporarily in the midst of a depression, have nevertheless a great rôle to play, and so far as the American investor goes that rôle will be played, I feel confident, precisely along the lines that Professor Holcombe suggests. The basis of credit among nations, as among individuals, is in the love of peace and order and in firm determination to honor one's obligations in season and out of season, in good times and bad times.

I have the honor to introduce to you as the next speaker, Mr. John H. Fahey, the editor of *The Worcester Post,* and the former President of the Chamber of Commerce of the United States, who will talk about tariffs.

[1] Professor Shotwell's illness prevented him from preparing a paper for inclusion in this volume.—Ed.

TARIFF BARRIERS AND BUSINESS DEPRESSION

JOHN H. FAHEY

Editor, *Worcester Post*; Former President, U. S. Chamber of Commerce

IT seems to me that no fair-minded business man or student of public affairs can fail to realize that the tariff changes which have taken place in the United States and in most of the countries of Europe during the last two years have had a very considerable influence upon the development of the depression through which we have been passing; that they have served to prolong it and make it more difficult; that they will tend to make the revival less rapid than it should be. Finally, if we are to make, during the next decade, the progress which we have a right to expect, we must find some basis for international understanding with reference to the tariff problem.

As we all, I think, appreciate, the United States after all is the greatest free-trade country in the world. Here in fact we have forty-eight separate nations with no tariff boundaries between them. If conditions in this country were similar to those which exist in Europe, merchandise transported between Boston and Philadelphia—a distance of not over 350 miles—would have to pass through five separate customs houses at the boundaries of five different states. If such barriers existed throughout the country, mass production would be impossible. The development of such a great fundamental industry as the automotive industry on its present scale would have been absolutely impossible. The development of most of the large business corporations as we know them today would, in my judgment, have been impossible. Until a basis is found for changing the tariff situation on the other side of the Atlantic, Europe will fail to go forward at the speed which should prevail.

Of course, the tariff changes which we made in 1930 had their very serious reactions abroad. If in our own country each state had its tariff barrier as against its sister states, and for any reason the industrial states of the Northeast, including

New York, New Jersey and New England, simultaneously raised their tariff rates substantially, other sections of the country would promptly react and raise their rates correspondingly against the group of states in the Northeast. In exactly the same fashion Europe has reacted to our action in raising our tariff levels.

We all know that in the period immediately after the war business men everywhere were greatly concerned over the new barriers to trade which were raised in every direction. One country after another adopted higher tariffs. There were interferences with transportation, and many other difficulties of similar character were encountered. In their international meetings business men were in general agreement as to the need for stopping these tendencies and for bringing about reforms, which would reduce the handicaps to the free exchange of merchandise. In one biennial meeting after another the business men and bankers represented in the International Chamber of Commerce went on record emphatically in opposition to these policies.

As you know, there was then called the International Economic Conference, which was held at Geneva, and there, through our official delegation, we joined with the others in the declaration that the time had come when further increases in tariff rates should stop, and that the movement should be in the other direction.

In the several leading commercial countries of Europe there followed rather vigorous efforts to bring about tariff changes and understandings. They encountered strong opposition, of course, in many directions, but nevertheless substantial progress was being made when the proposal developed in this country for an increase in our rates. Neither here nor in Europe, when that demand first arose, was any general tariff revision anticipated, in my opinion. Certainly American business men discussing the question with business men on the other side of the Atlantic, while the new American tariff was under discussion in Congress, had no hesitation in giving assurances that the general revision would not take place to any such extent as that which was anticipated in Europe; also a very large number of business leaders in the United States did not believe that the tariff bill which we finally adopted would ever

become a law. Business leaders in many sections of the country, and representing many different trades, had no sympathy whatever with many of the upward changes which took place. I know, personally, that in various trades representatives appeared at Washington and under the pressure of demand from some of the marginal producers advocated upward tariff revisions with which they did not sympathize.

The effect of these changes on the other side is well known to all of us. There can be no question but that they have stimulated many measures of reprisal. The consequence is seen in the tremendous decline in our exports during the last year and a half. We must, of course, agree that there have been other causes for that drop in our export trade, but that the tariff has been an influence of no little importance cannot be denied. Not only has it interfered with the splendid foreign trade which we enjoyed, not only does it promise to be a cause of difficulty for some time to come, but I think we must recognize that probably to an unprecedented extent it is generating an ill will toward our country that is far from encouraging.

In one of his articles the other day former President Coolidge remarked that peace and friendship were the "foundations of human progress;" that "Trade is increased and common interests are developed on these foundations." "Friendship between people is the important thing," he continued. "If that is on a sound basis, economic relations will adjust themselves."

Every intelligent business man strives so to conduct his affairs as to create the least possible friction with those with whom he is doing business. No sane business man deliberately adopts a policy the effect of which is to affront his customers and arouse irritation. How can this nation, or any other nation, expect to continue on the road to progress if it adopts a policy different from that of the average successful business man in his relations with his customers?

Is ill will a real disadvantage, a real barrier to the development of business? It seems to me we need only to consider the fact that in the last twelve months alone as a result of the Indian boycott something like $650,000,000 of trade has been destroyed. That misfortune has its effect not only on Great

Britain but on the United States and on every other important commercial nation, for to the extent that Great Britain's buying power is impaired the thing reacts on us and on every other country.

Of course, respecting many of the changes and increases that have been made in other countries the explanation is offered that these steps are not taken as retaliatory measures; that they are taken merely to protect unemployment within the country itself. However, despite these excuses we all know perfectly well that a very large proportion of the changes are the result of resentment against action taken by other countries.

Let us consider the situation in Canada. The Prime Minister of Canada, Mr. Bennett, was quite frank in explaining the Canadian attitude a few months ago, after the adoption of their new policy. He said: "Those who raise prohibitive barriers against our products entering their markets must expect that we will extend favors to our own good customers rather than to them. I speak in no spirit of retaliation. I would rather extend lower tariff favors to those who extend them to us than to impose prohibitive tariffs in return for like treatment. Other countries who may buy from and sell to us have it in their power by reciprocal action on their part to enable us to reduce duties to the level of the rates stated in our tariff."

Within a few short months after the new Canadian tariff was adopted, 130 American manufacturers established branch plants in Canada, and scores have followed their example since. Does anyone believe, irrespective of the changes which may now take place, that those American plants will ever move back across the border again? Is there any escape from the fact that every branch American plant unnecessarily established in Canada means just so many less workers employed on this side of the line? I do not for a moment intend to say that in numerous instances, in the natural course of events, American producers would not have to establish branch plants in foreign countries, but in every case where that is forced by tariff changes it is certainly a misfortune for us.

It is quite possible that, so far as our very important automobile export is concerned, in the course of time we would

under any circumstances be forced to develop American plants abroad; but nevertheless some of those branch plants would not have been opened if it had not been for recent European tariff legislation against our automobile exports.

It is worth while realizing that the half-billion dollars of automobile exports which we have lost would represent the full-time output of all of the automobile plants in the United States running for one month. Think of that loss of wages. Not only that, but the reaction of that loss so far as the automobile industry is concerned on the hundreds of industries all over the country that are so closely related to it is a matter of very great importance.

It is unnecessary to go into any detail illustrative of the losses which we have incurred as a result of the tariff changes which have taken place. It is said in partial apology for the policy which we have followed that after all during this world-wide depression our losses have been no more proportionately than those of other countries. But can we find any great encouragement in that fact? Is it a real consolation to know that if we have lost, others have likewise lost in equal proportion?

What are we going to do about it all? Well, it is not so difficult to get tariffs up under some circumstances; but it is much more difficult to get them down, and if we agree that some world-wide policy of gradual tariff reductions is not only desirable but necessary, then certainly we must at the same time realize that it is far from being an easily achieved objective. Yet if business is soon to resume its healthy, upward development, we must attack this problem, and a real beginning must be made toward the gradual reduction of tariffs.

What business needs most is greater stability in development from year to year and escape from the violent upward swings which are always followed by dizzy and disastrous declines. Reasonable competition—that which is kept within the bounds of fair play—is one of the most valuable factors in maintaining economic balance.

Of course, the United States is not the only offender in the enaction of extreme and unwise tariff rates. There are some far worse than we are. There is, of course, no doubt that con-

certed action on the part of the leading countries of the world to reduce tariffs would be of great advantage. It is to be feared, however, that the influence of various private interests which are the beneficiaries of special tariff favors in all countries will be able to prevent general action on any considerable scale.

The situation is so serious, that every attempt in this direction should be encouraged and we of the United States should join whole-heartedly in the effort.

Whether we can contribute largely to it in the United States without another general revision remains to be seen. We are between the devil and the deep sea when we consider that proposition. If we undertake another general revision, business will say that will prolong our disturbance; but on the other hand unless we do something really worth while about tariff we must speculate as to whether maintenance of present conditions may not have the same effect in prolonging the business depression.

We are trying to deal with the tariff problem anew through the medium of a Tariff Commission. As you all know, the business men of the United States agitated for the establishment of a Tariff Commission for a great many years and were very influential in bringing about the legislation which established the first Tariff Commission. Unfortunately, that experiment was not as successful as we hoped it would be. Possibly its failure was partly due to the fact that people conceived the Tariff Commission not as a body approaching the problem from a truly scientific standpoint, but as one committed to a particular kind of tariff.

Whether we shall be any more successful in setting out upon our new adventure with a Tariff Commission remains to be seen. In any event, there surely is the prospect that substantial changes as a result of recommendations of the Tariff Commission will take a very long time, and there is a good deal of reason to believe that public sentiment with reference to the tariff is now developing in such a way that within the next year and a half we may face a demand for a very general revision. Certainly, so far as Europe is concerned, the conditions prevailing at present are such as to create a situation which will demand a realistic reconsideration of the whole tariff question.

As the nation which under normal circumstances has the largest export business of any in the world, we bear a peculiar responsibility to contribute at least our share, and indeed a little more than our share, in the leadership of a general movement for a better international adjustment of this very annoying and disturbing tariff problem.

Remarks by the Chairman

Chairman Leffingwell: We are all very grateful to Mr. Fahey for his clear exposition of the problem of world trade and its relation to the tariff. He has brought out rather briefly and clearly one of the most striking things about American economic history, and that is the two-sidedness of our conduct in relation to the tariff.

The cardinal point in American economic life, is that by the Constitution of the United States some forty-eight independent, sovereign states have agreed with each other that their people shall have free trade with each other. That, I suppose, is the situation to which Mr. Fahey refers when he states that the United States is the greatest free-trade nation in the world. Yet we have led the world in the erection of economic barriers against world trade, and wonder why world trade is stagnant.

It takes no nice discrimination to accept Mr. Snyder's view which rejects, if I understand him correctly, the theory of overproduction in general as a cause of depression in general, and at the same time to recognize such simple facts as that there is overproduction in this or that industry. The greatest of all industries, still, in this mechanical age, is the industry of agriculture, and we are very fortunate to have with us today Dr. Lewis C. Gray, of the Division of Land Economics, in the Department of Agriculture of the United States. I have great honor in introducing him to you—Dr. Gray.

THE RESPONSIBILITY OF OVERPRODUCTION FOR AGRICULTURAL DEPRESSION

L. C. GRAY

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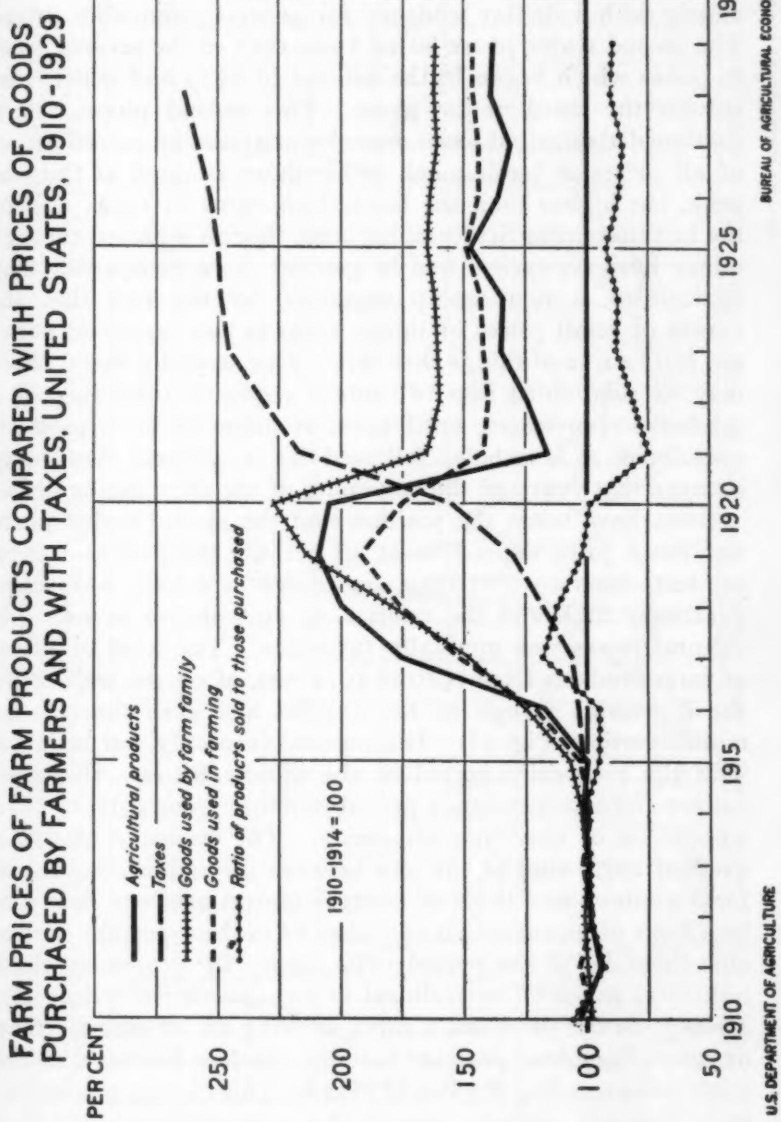
A DECADE of agricultural depression has given rise to the formulation of numerous theories concerning its nature and causes, a diversity of opinion manifest in the meetings of the International Conference of Agricultural Economists at Ithaca last summer. The explanations of the depression fall into two main groups — first, those that emphasize primarily the movement of the general price level as it affects agriculture and therefore lean toward a monetary explanation; and second, those that stress the equation of supply and demand with reference to agriculture. Within these two main groups, however, there are variations of emphasis and interpretation.[1]

The title of this paper might suggest that I am to be classified in the second of these two major groups and that I am inclined to attribute the depression solely to agricultural overproduction. This is far from the case. I am merely trying to indicate that overproduction must have some responsibility for certain phases of the depression, and am willing to concede more or less responsibility to other factors. This may lay me open to the charge of eclecticism, and eclecticism does not ring the bell very loudly. Yet, I suspect Nature is eclectic in her manifestations, and economic phenomena in their behavior; and, therefore, I am willing to admit the charge.

In interpreting the agricultural depression, it is important to distinguish three major phases, one of which may be subdivided into two minor phases (Fig. 1). The first major

[1] For a brief summary of some of the interpretations, with numerous footnote citations to sources, see Warren, G. F., "The Depression: Causes and Duration," Second International Conference of Agricultural Economists, *Proceedings*, pp. 87-92.

FIGURE 1

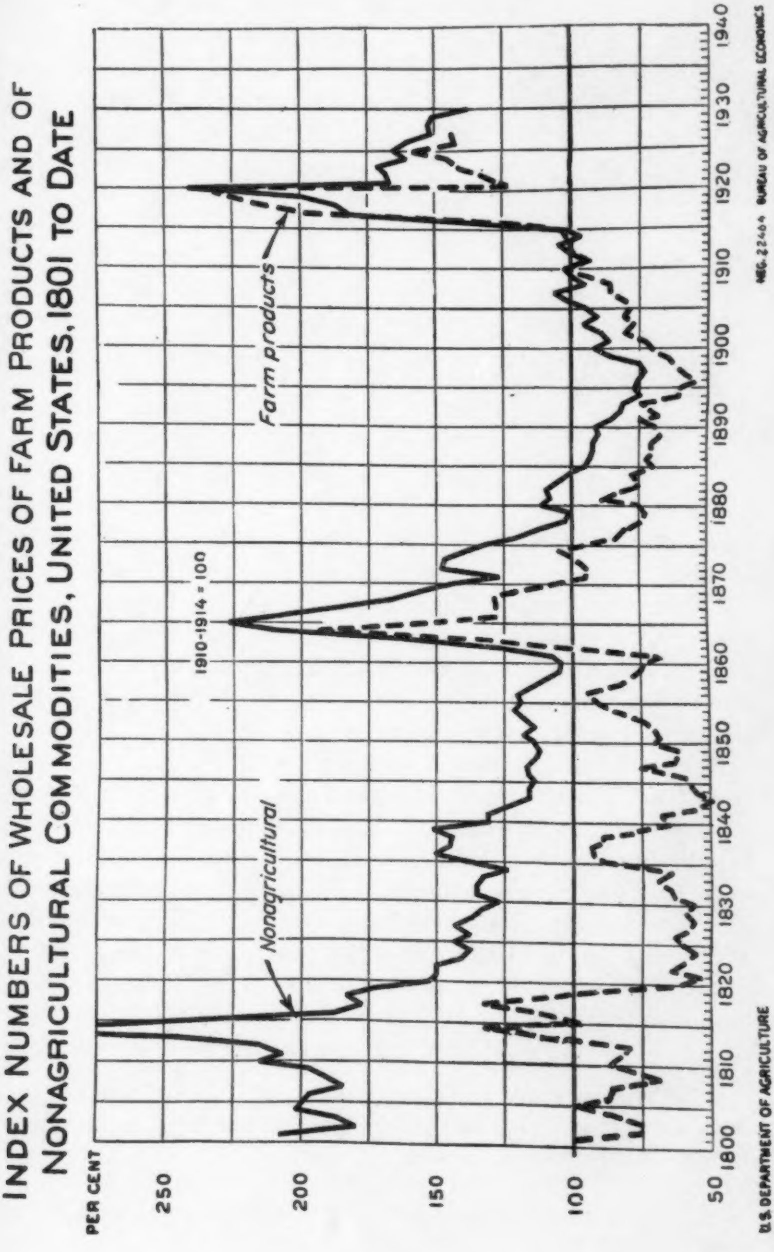

FARM PRICES OF FARM PRODUCTS COMPARED WITH PRICES OF GOODS PURCHASED BY FARMERS AND WITH TAXES, UNITED STATES, 1910-1929
PER CENT
250
200
150
100
50
1910
1915
1920
1925
1930
Agricultural products
Taxes
Goods used by farm family
Goods used in farming
Ratio of products sold to those purchased
1910-1914 = 100
U.S. DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS

phase was the sudden and drastic decline in prices of farm products which began in the spring of 1920, synchronizing closely with a similar tendency for general commodity prices. The second major phase lasted from 1921 to the serious break in prices which began in the autumn of 1929 and which constitutes the third major phase. This second phase, which continued about eight years, was characterized by a continuance of all prices at levels much below those attained at the war peak, but higher than the levels from 1910 to 1914; and by the fact that nonagricultural business, though it passed through minor business cycles, was in general more prosperous than agriculture, a relationship suggested by the fact that the curves of retail prices of things farmers buy remained above the price curve of things they sell. This second general phase may be subdivided into two minor segments consisting of a gradual improvement, until 1925, of prices of farm products considered as a whole, followed by a general weakening between that year and the beginning of the third major phase.

Some have taken the position that the second major phase was not a price depression at all because the prices of farm products from 1910 to 1914, considered as a base, were comparatively high and the relation of agricultural to nonagricultural prices was unusually favorable. The level of prices of farm products from 1910 to 1914 was, of course, well above the depression trough of the nineties and even that of the middle forties (Fig. 2). It compared favorably, for instance, with the prosperity period of the middle fifties. However, neither the last-mentioned period nor that from 1910 to 1914 were times of abnormal prosperity. The tendency toward a gradual narrowing of the gap between the index numbers of farm products and those of nonagricultural products may also be a basis of unwarranted optimism as to the especially favorable character of the period 1910-1914. By expressing these indices as ratios of agricultural to nonagricultural prices Mr. Louis Bean has produced a curve showing an increase in trend of several hundred per cent between the late thirties and the years just preceding the World War.[2] This changing relationship probably reflects mainly the extraordinary technical

[2] See *The Agricultural Situation*, issued monthly by the Bureau of Agricultural Economics, vol. XI, No. 3, March, 1927, p. 23.

FIGURE 2


INDEX NUMBERS OF WHOLESALE PRICES OF FARM PRODUCTS AND OF NONAGRICULTURAL COMMODITIES, UNITED STATES, 1801 TO DATE
PER CENT
250
200
150
100
50
1800
1810
1820
1830
1840
1850
1860
1870
1880
1890
1900
1910
1920
1930
1940
1910-1914 = 100
Nonagricultural
Farm products
U.S. DEPARTMENT OF AGRICULTURE
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progress in the production of the standard nonagricultural commodities included in price indices. It does not have great significance for indicating the change in the relative economic position of farming as compared with other industries, though it does suggest that farmers have participated in considerable measure in the general benefits of the technical progress of the world. However, for the period 1921 to the beginning of the present phase, one does not have to rely primarily on price statistics to demonstrate the reality of agricultural depression. It is indicated by falling land values, foreclosures and bankruptcies, the failure of country banks, the flight from the farm, the general depreciation of farm buildings, and the widely recognized inadvisability of engaging in farming as a business.

The First Phase

"Monetary agricultural economists", if I may use that expression, argue that, since the sudden decline in 1920 in agricultural prices coincided closely with a corresponding decline in prices of nonagricultural commodities, the former could not be attributed primarily to overproduction without assuming general overproduction. This, they allege, leads to an "outrageous paradox", since it suggests that the world can improve its economic position only by producing less and therefore having less to consume.[3]

When the proposition is stated thus baldly one may admit it, but one is not thereby estopped from asking why it is necessary to assume that either the supply of gold or the supply of purchasing power should be called upon to bear the sole or even the major responsibility. As to the first, Professor G. F. Warren declared at the Ithaca meetings, "Few economists, of whom I am one, believe that the depression is due primarily to the rise in the value of gold, which is gradually approaching its pre-war value."[4] In 1923, Warren published a chart[5] which shows that gold production increased very slightly from

[3] *Cf.* Lloyd, E. M. H., "The Relation of Monetary Conditions to the Agricultural Depression", Second International Conference of Agricultural Economists, *Proceedings*, pp. 40-42.

[4] *Ibid.*, p. 90.

[5] "Prices of Farm Products in New York", *Bulletin 416*, Cornell University Agricultural Experiment Station, January, 1923, p. 9.

1914 to 1916 and then began a gradual decline—probably stimulated prior to 1920 by rising costs of gold production in relation to the falling value of gold. The decrease continued throughout the four years when prices were rising to record heights. However, world gold reserves increased by about one-half from 1914 to 1922, and fully half of this increase occurred from 1919 to 1922, during most of which time prices were falling. In short, both the great rise and the great drop in prices synchronized with a steady increase in the amount of world gold reserves. Moreover, from 1914 to 1922 the gold reserve of the United States increased threefold. Surely these relations between the movement of gold and the movement of prices should serve to discourage conclusions overemphasizing the responsibility of gold supply to be found in some of the discussions of agricultural prices.

The drastic decrease in prices of farm products, as well as of other products, was rendered inevitable by the fact that in spite of the enormous expansion of gold reserves in the United States the pressure on our credit structure became dangerously severe in the latter part of 1919, as a result of the rapid rise of prices, the continued heavy expenditures of the Federal Government, and the frenzied post-war buying from this country by Europe facilitated first by government loans and subsequently by credits on open account.[6] The top-heavy structure of abnormal prices, overcapitalization, redundant stocks of goods, and excessively expanded credit tottered to its inevitable fall. Rising costs wiped out profits as increasing scarcity of real capital and of bank money in relation to the inflated demand for it led to rapidly rising loan rates, ultimately reinforced by the necessity of raising the rediscount rate of the Federal Reserve System, and subsequently of other central banks, in order to protect reserve ratios.[7]

The price decline of 1920-21 was due mainly to a collapse of demand associated with the decrease in potential purchasing power, but attributable only partly to such a decrease. It is not necessary before so economically sophisticated an audience to trace the course of a major economic crisis. You are all

[6] *Cf.* Anderson, Benjamin, "The Return to Normal", *Chase Economic Bulletin* I, No. 3, Feb. 28, 1921, pp. 14, 15.

[7] *Ibid.*, p. 30.

aware that there is a cumulative series of interactions that tend to restrict demand. To some degree the process reduces the volume of purchasing power. In the early stage of such a depression the pressure on bank reserves, together with the natural increase in caution, restricts the volume of loans made available. Certain classes of loans already extended become "frozen," thus diminishing still further the volume of liquid credit. Much of the shrinkage in demand, however, is due not merely to a decrease in the potential volume of purchasing power, but either to the fact that certain classes of former demanders find their individual command over purchasing power reduced or to the fact that the changed economic relationships make purchases inadvisable. In connection with the first of these causes, among other things, one thinks of the shrinkage in aggregate wages due to unemployment and the decline in the value of collateral and other forms of property that may serve as security for loans; the second includes the changed relations between selling prices and costs, which discourage expenditures for capital goods, and the inadvisability of additions to stocks already expanded in the face of falling prices. These points are elementary. I mention them merely to emphasize the conclusion that the shrinkage in demand which lowers agricultural and other prices is not merely a function of decreased potential purchasing power.

Such an overwhelming shrinkage in demand, of course, modifies materially the equation of demand and supply. Even though volume of agricultural production has not been increased, stocks inevitably pile up. The essential question, however, is whether production in the years preceding the crisis of 1920 was normal or abnormal. Professor Sering, of Berlin, asserts that increased production in non-European countries failed to offset the collapse of grain production in Eastern Europe and the depletion in numbers of cattle and other stock throughout that continent. He asserts, "It is impossible, therefore, to find the cause of the decline in prices of grain and cattle which took place between 1920 and 1923-24 on the side of supply; obviously it is to be found on the side of demand." [8] On the other hand, Professor Warren, though attributing the

[8] Second International Conference of Agricultural Economists, *Proceedings*, p. 24.

FIGURE 3

INDEXES OF COTTON PRODUCTION AND FARM PRICES OF COTTON AND INDEX OF RETAIL PRICES OF COMMODITIES FARMERS BUY

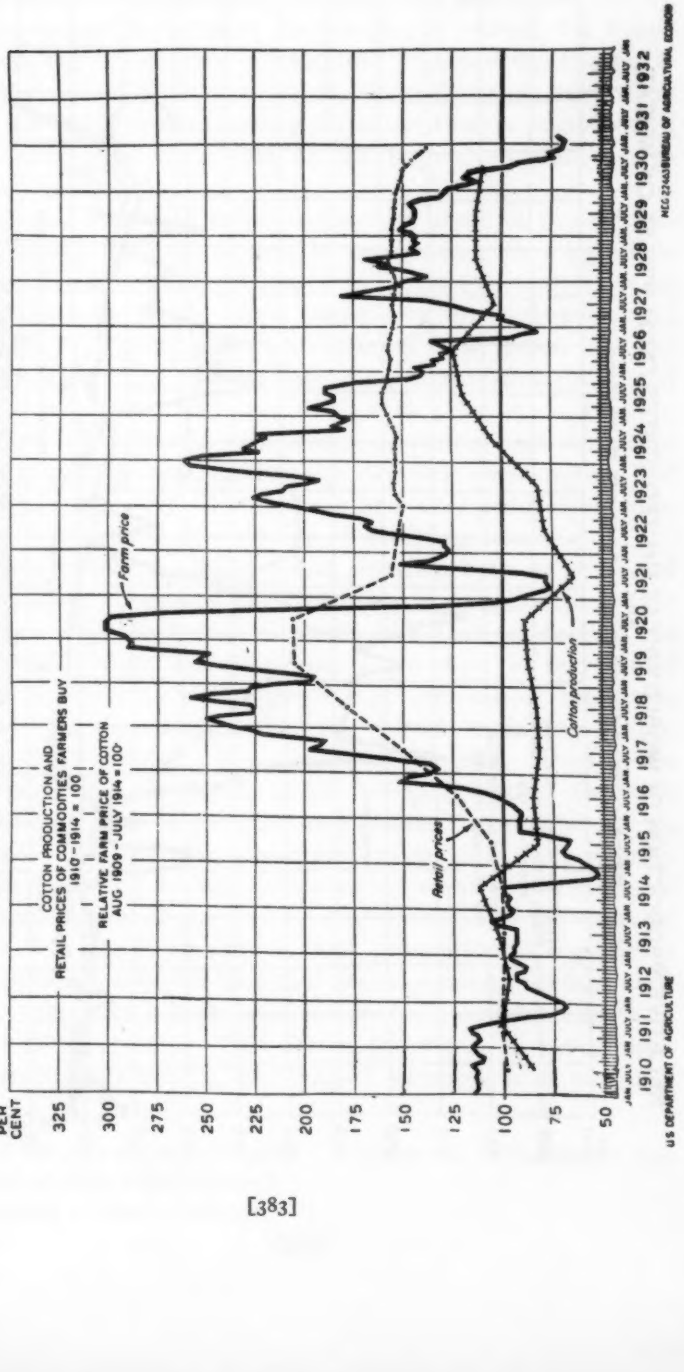
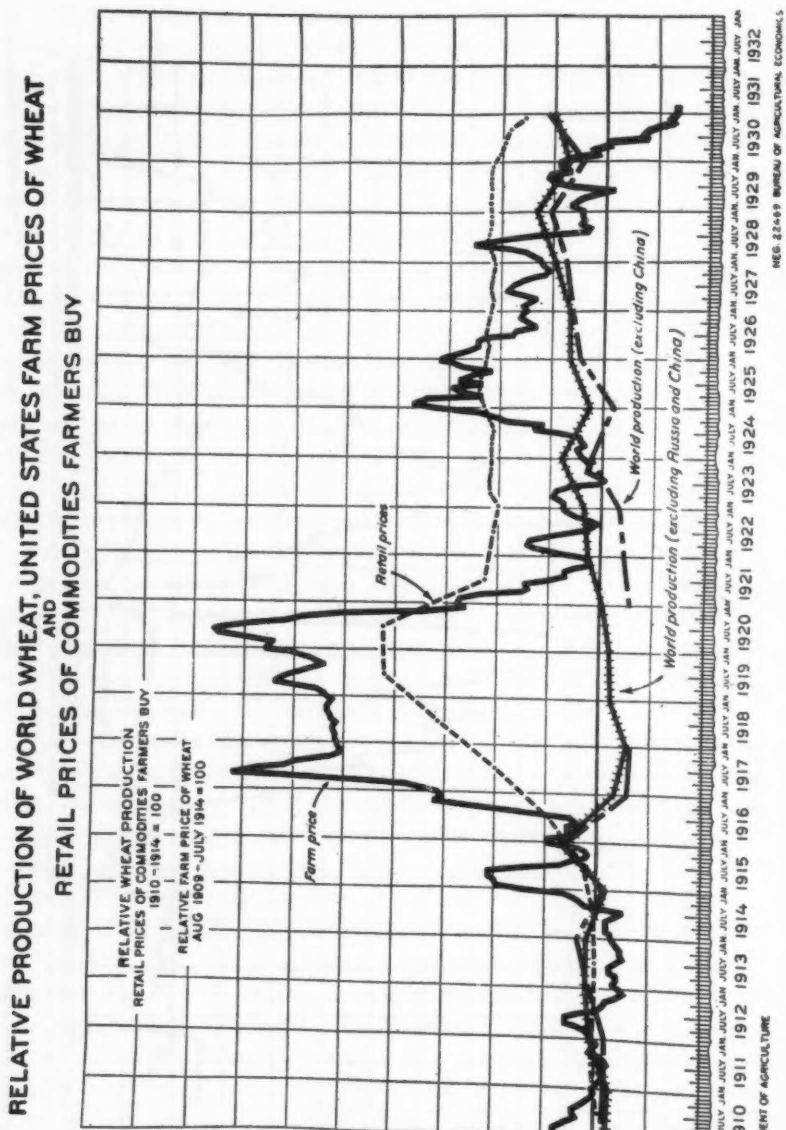


FIGURE 4


RELATIVE PRODUCTION OF WORLD WHEAT, UNITED STATES FARM PRICES OF WHEAT
AND
RETAIL PRICES OF COMMODITIES FARMERS BUY
RELATIVE WHEAT PRODUCTION
RETAIL PRICES OF COMMODITIES FARMERS BUY
1910-1914 = 100
RELATIVE FARM PRICE OF WHEAT
AUG 1909-JULY 1914 = 100
PER CENT
325
300
275
250
225
200
175
150
125
100
75
50
Farm price
Retail prices
World production (excluding China)
World production (excluding Russia and China)
1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932
U S DEPARTMENT OF AGRICULTURE
NEG. 22409 BUREAU OF AGRICULTURAL ECONOMICS

depression mainly to the conditions that caused a decline in the general price level, declares, "In 1920, the stores hoarded by the Government began to be thrown on the market, the horse, beef, and hog cycles were, by accident, coincidently at a peak. This peak would have occurred at about this time regardless of the war. Even considering all these factors combined, I believe that more than half of the depression was due to monetary causes." [9]

If this last statement refers to the first phase of the depression, I would go even farther in recognizing that but little responsibility should be attributed to overproduction. Let us consider first the great world staples—cotton and wool, and the grains. In 1915 the production of raw cotton fell far below the trend line for the preceding twenty-five years and remained below for the next five years (Fig. 3). Thus in 1920 there was a world-wide deficit of cotton, and American exports greatly decreased, although domestic consumption had fairly held its own.[10] World sheep and wool production, also, were near the bottom of a decade of declining trend.

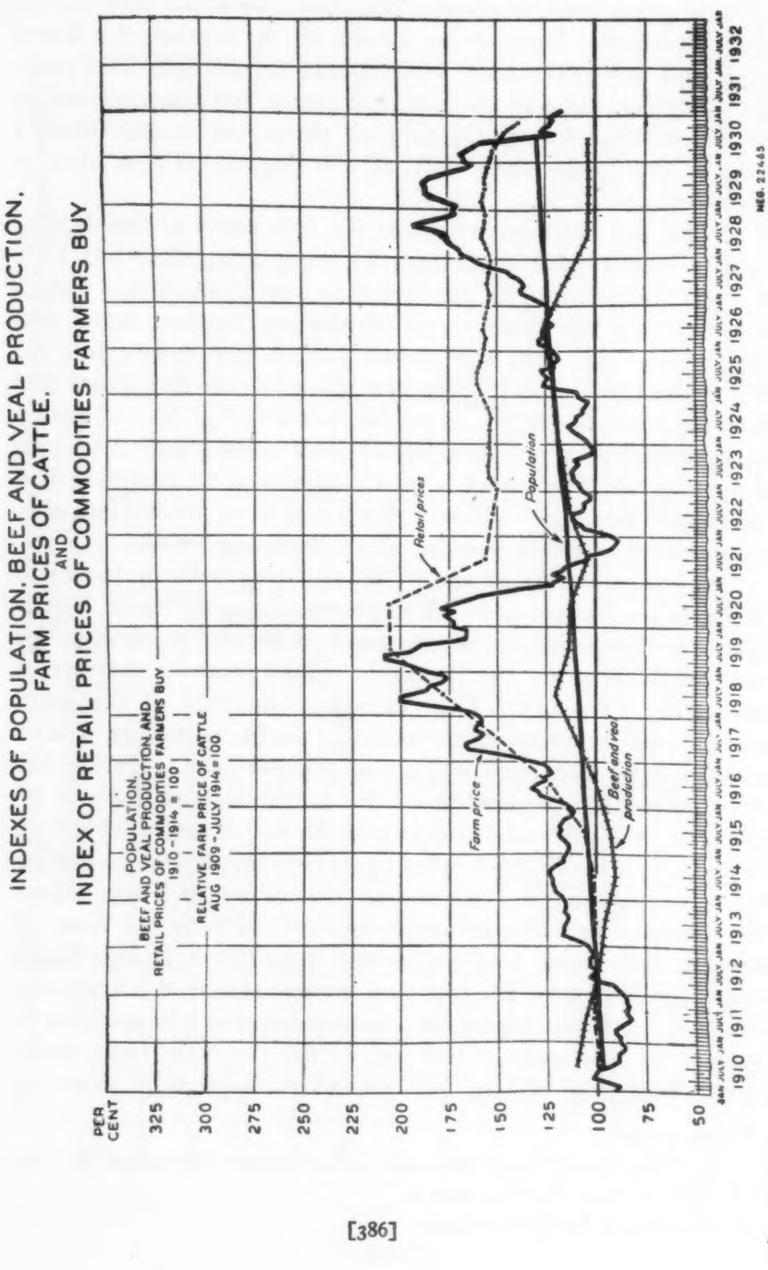
The interpretation of the wheat situation both in 1920 and in the following years of the depression is complicated by the fact that the general upward trend of wheat production for the past thirty years had been more rapid than the increase of population (Fig. 4). The percentage increase of the trend line of wheat production for the world excluding China between 1900 and 1929 was about 115 per cent. During the same period the population of the world increased about 18 per cent and that of Europe and North America about 30 per cent.[11] It is true, the wheat gets consumed. Consumption has been spreading in Asia and to some extent in Europe since the World War. Nevertheless, the diversity in the rates of increase for wheat production and population is significant especially in view of the fact that the expansion of wheat consumption has been largely on a luxury basis and is sensitive to changes in prosperity. Just before the crash of 1920, however, wheat, like cotton, had passed through four years of

[9] *Ibid.*, p. 95.

[10] See "The World Cotton Situation", *Miscellaneous Publication No. 104*, U. S. Dept. of Agr., Figure 3, page 5.

[11] According to Knibbs' estimates.

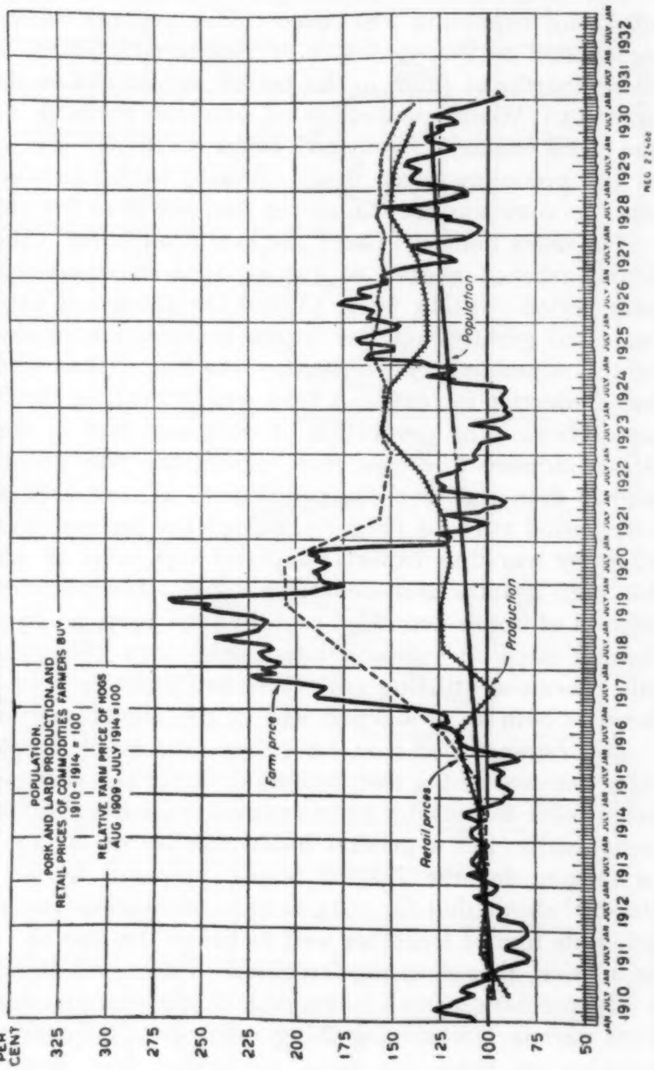
FIGURE 5



INDEXES OF POPULATION, BEEF AND VEAL PRODUCTION, FARM PRICES OF CATTLE, AND INDEX OF RETAIL PRICES OF COMMODITIES FARMERS BUY
POPULATION, BEEF AND VEAL PRODUCTION AND RETAIL PRICES OF COMMODITIES FARMERS BUY 1910-1914 = 100
RELATIVE FARM PRICE OF CATTLE AUG 1909 - JULY 1914 = 100
PER CENT
325
300
275
250
225
200
175
150
125
100
75
50
Retail prices
Population
Farm price
Beef and veal production
1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932
NEG. 22463

FIGURE 6

INDEXES OF POPULATION, PORK AND LARD PRODUCTION, FARM PRICES OF HOGS, AND INDEX OF RETAIL PRICES OF COMMODITIES FARMERS BUY



production below the line of trend, due to the elimination of Russia and a decline in the remainder of Europe, not fully offset by expansion elsewhere. The average annual world production of rye, exclusive of Russia and China, was only three-fourths as great in the period 1914-20 as in the period 1909-13. World production of oats for 1916-19, excluding the same countries, averaged about seven per cent less than in the preceding seven years. World barley production for 1914 to 1920 was about nine per cent less than for 1909-13.

The index number of beef and veal production in the United States reached a peak of 121 in 1918 as compared with a base period 1910-14 (Fig. 5), but the volume of exports had increased greatly, and per capita consumption in the United States, stimulated by prosperity, was larger than since 1911; but production in 1919 and 1920 was little above the index for population. The production of pork and lard in the United States climbed to a new level during the war years, a level higher than that for our population, as compared with the base period 1910-14 (Fig. 6), though the increase was largely offset by war-time exports; and the high level of production has been greatly exceeded since 1922. The per capita production of butter decreased rapidly until 1920, and production did not catch up with population until 1922 (Fig. 7), but for other forms of utilizing milk there had probably been a steady increase both in production and in per capita consumption.[12]

The commodities that have been discussed supply about sixty per cent of the cash income of American farmers. It is not feasible to consider the numerous other lines of production individually, but a general index number of all agricultural production for the United States, prepared by Dr. O. E. Baker,[13] shows that for 1915 to 1920 production was generally below its line of trend, as well as below the line of trend for population, though rising irregularly from 1917 to 1920.

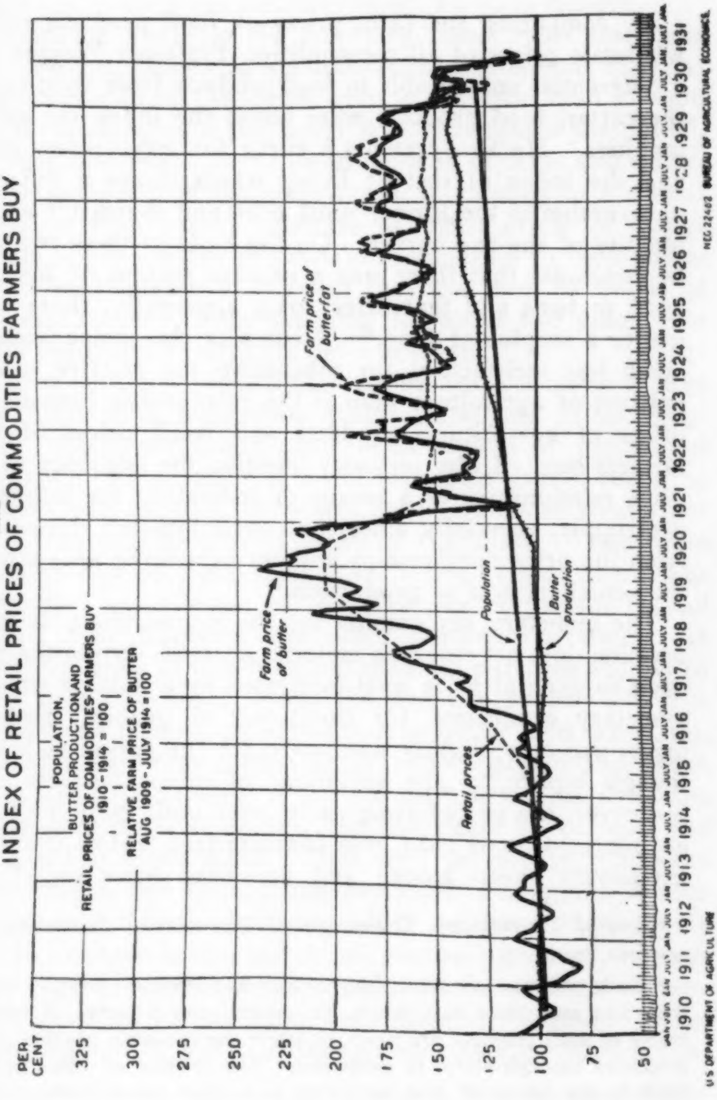
The conclusion seems inescapable that overproduction played little part in intensifying the general drop in prices of farm products in 1920, for farm production had been notably deficient for several years.

[12] Statistics of butter production are much more reliable than those of milk production.

[13] See "Land Utilization and the Farm Problem", by L. C. Gray and O. E. Baker, *Miscellaneous Publication No. 97*, U. S. Dept. of Agr., p. 11.

FIGURE 7

INDEXES OF POPULATION, BUTTER PRODUCTION, FARM PRICES OF BUTTER AND BUTTERFAT, AND INDEX OF RETAIL PRICES OF COMMODITIES FARMERS BUY



The Second Phase

By comparing the farm prices of food products with the wholesale prices of all commodities, Professor Warren shows a differential unfavorable to food products from 1919 to 1925; thereafter, food products were above the index for all commodities. He also presents a curve for retail prices of food and the index of cost of living which shows a differential unfavorable to the former until 1925 and thereafter a virtual identity of the two curves. On the basis of these two curves he concludes that there was a relative surplus of food from 1920 to 1924 and that after 1924, apparently, there was no longer a surplus of food.[14] I consider the comparisons used much less satisfactory for measuring the relative economic position of agriculture than is the relationship between farm prices of agricultural products and retail prices of things farmers buy. I also seriously question the adequacy of these price relationships as a means of indicating the influence of oversupply, especially since the conclusions are drawn solely from the price relationships without presenting an analysis of the actual facts as to production.[15]

The monetary explanation for the second phase of the depression does not rest on a material decrease during the period itself in general price level motivated by a notable change in monetary conditions, for the trend of general commodity prices was only slightly downward for the period as a whole, though broken by the variations of minor business cycles. Moreover, the period from early 1922 until early 1928, with an interruption in 1923, was characterized in this country by excessively cheap money and unlimited bank credit. We

[14] Second International Conference of Agricultural Economists, *Proceedings*, pp. 98-99.

[15] Such products as cotton, flax, tobacco and wool are large elements in American agriculture as a whole. Moreover, over a period of years low prices of such products are likely to affect the economic position of food producers through shifts in production. The relation of retail prices of food to the index of cost of living is a poor measure either of the economic position of farmers or of overproduction as a factor in determining that position. In general, farmers do not sell food at retail, and the index of cost of living is not an accurate measure of the price level of the things farmers buy.

expanded the deposits of our commercial banks 13½ billion dollars and their loans and investment by 14½ billions.[16]

Persons emphasizing the monetary factor must rest their case, therefore, mainly on the dislocations in economic relationships occasioned by the severe drop in the price level in 1920 and its continuance at this lower level throughout the period. Attention is directed to the rapid increase of taxes and a considerable increase in mortgage debts, in relation to a drastic decline in land values. Failure of retail prices of things farmers buy to decline to pre-war relationship to farm prices is attributed largely to the fact that the level of wages of industrial laborers, after declining for about two years, rose to and continued at virtually pre-war levels.[17]

I have no desire to minimize the influence of these aspects of the depression, but certain qualifications need to be recognized. There are indications that in regions of active land speculation the number of owner-operated farms changing hands by sale at boom prices was not above ten to twenty per cent of the total number of farms of that class. There were extensive regions, with numerous farms, where there was little active speculation: for instance, the Appalachians and Ozarks, New England, and other northeastern states. A large proportion of those farmers who did purchase at inflated prices were closed out during the first five years. The 2½ million farm tenants are not subject to heavy land taxes, nor, in general, have they contracted heavy mortgage indebtedness. All in all, it is doubtful if ten per cent of the farms of the nation were operated in the past five years by persons who purchased at boom prices. It is true, the disparity between urban wages and farm prices developed during the sudden collapse of prices in 1920-21, which we have attributed in part to changes in the supply of purchasing power, but are we to agree that commodity prices continued high because wages returned to war-time levels and even higher? What caused them to do this? Although the power of union organ-

[16] Anderson, B. M., "The Financial Situation", *Chase Economic Bulletin*, IX, No. 6, p. 4.

[17] These various aspects of the depression have been effectively presented by Professor Warren. See article in *Proceedings* of the International Conference of Agricultural Economists.

ization probably had considerable influence, I suspect that wages continued high partly by virtue of the special conditions favorable to industrial commodity prices and industrial activity during the second phase of agricultural depression. These include the post-war building boom and the industrial rebuilding and reconstruction requirements of this country and Europe—a prosperity maintained in spite of high wages and of the monetary influences supposed to explain the agricultural depression. Certain special demand conditions also had a direct bearing on the prices of farm products, including the great decrease in demand for hay, corn and oats due to replacement of workstock by tractors and motor vehicles, the decline in per capita consumption of bread grains in the United States, and the various conditions that have led to an increase in production of farm products in Europe, reducing demand for extra-European products.

The second phase was characterized by rapidly mounting production of important commodities that are largely affected by world price levels. By 1920 wheat production was back to the line of trend, which, as we have noted, was much more rapid than population trend from 1890-1920. For the first five years weakness in demand is evidently a relatively more important factor than in the last five years. The small crop of 1924 and 1925 led to a notable increase of price, which steadily declined again as production rapidly mounted. From January, 1926, to January, 1930, the world's visible supply of wheat increased more than eighty per cent.[18] World production of rye increased quickly after 1920 and from 1921-29 averaged forty-two per cent above the average for 1915-20, although only seven per cent above the average for 1908-14. As we have seen, there was a serious deficit of cotton in 1920. As soon as the paralysis of trade was somewhat relieved, the price of cotton mounted rapidly to a peak of about thirty-two cents in the winter of 1924. Production increased rapidly both in the United States and in foreign countries, and farm prices fell to about ten cents in January, 1926. Small crops in 1926 and 1927 stimulated another price increase, which went above twenty cents in the early autumn of 1927, but there-

[18] See "The World Wheat Outlook, 1930", *Miscellaneous Publication No. 95*, U. S. Dept. of Agr., p. 11.

after production continued to increase and prices weakened, though a drastic decline did not occur till the beginning of the third major phase of the depression. Comparatively favorable prices of wool stimulated an upward trend during the period in the number of sheep in the principal producing countries. The hog industry, also dependent partly on foreign markets, was affected by extremely low prices from 1921 to 1923, which stimulated a drastic liquidation of stock hogs. Liquidation reached a peak in 1923 and 1924, and was followed by a notable decline in volume of slaughter, which caused prices to rise sharply in 1925 and 1926. The production of pork and lard climbed to a new high level between 1914 and 1918, and the level has been increased since that time, though with considerable fluctuations identified with the hog cycle. The average index number remained consistently higher than that for population.

Let us now consider a number of important commodities produced primarily for the domestic market. The low prices of cattle from 1921 until 1926 stimulated a drastic liquidation of farm stock, involving a heavy volume of slaughter. By 1927 liquidation had proceeded so far that volume of slaughter began to decline, though number of cattle on farms continued to decrease until 1928. The trend of production of dairy products has increased rapidly throughout the period of depression, in response partly to an expanding per capita consumption and partly to the shifting of production toward an industry favored by prices that have been steadier and relatively more adequate than for most farm products. A similar observation applies to poultry products. Though world production of corn during the second phase of depression has been somewhat higher than during the war years, the trend of American production, which is primarily for domestic use, has not been upward for more than a decade. Similar observations apply also to American production of oats. Neither crop, of course, figures largely in the direct cash income of our farmers.

The general index number of American agricultural production increased steadily to a peak in 1926, and is still at a high level as compared with the period 1915 to 1921.

In general, then, the second phase of the depression was a

period of increasing opulence in agricultural supply, particularly of world staples. This tendency was stimulated by significant technological improvements facilitating the expansion of wheat and cotton production into semi-arid regions, and greater efficiency in American production of livestock products.[19] The period was also marked by the steady progress of Europe toward greater agricultural self-sufficiency, stimulated by high agricultural tariffs. The rapid elimination of horses and mules and the liquidation of farm stocks of beef cattle and hogs materially weakened the economic position of the feed crops.

The Third Phase

The third phase of the agricultural depression unhappily still continues. It is marked by a sharp decline of general prices, a still greater decline of agricultural prices, already in a weak position, general business stagnation, and the cumulative weakness of demand characteristic of a business crisis.

Agricultural production has been at a high level as compared with the several years preceding the crash of 1920, although it has fallen, partly on account of seasonal conditions, below the peak reached about 1926-28. It is significant that in this country our agricultural plant has not been materially expanded since 1920, although a somewhat higher level of efficiency has been attained. Between 1919 and 1924 there was an actual decrease of about thirteen million acres. Since then we have returned to the crop acreage reported by the census as harvested in 1919,[20] but for the most part the net expansion since 1924 has been little more than the increase in acreage of cotton, although our population has increased about seventeen per cent since 1920. The number of beef cattle and hogs on farms has been reduced to a low level and can scarcely maintain the high volume of slaughter prevailing several years ago, although the number of hogs could be quickly expanded if price conditions should warrant. Appar-

[19] See Baker, O. E., "Regional Changes of Farm Animal Production in Relation to Land Utilization". A preliminary mimeographed report, Bureau of Agricultural Economics, Washington, 1929, pp. 1-8.

[20] As indicated by official crop estimates. Census statistics for 1929 are not yet available.

ently, therefore, the relatively weak economic position of American agriculture is intimately related to the overproduction of the great world products—wheat, cotton and wool. The first two, particularly, are so large an element in our farm economy that when their prices are unfavorable for a long period overproduction tends to be stimulated in other lines to which farmers turn for alternative sources of income.

The prospects for favorable agricultural prices, therefore, seem to be peculiarly dependent on foreign conditions of production and on the return to more normal conditions of demand, also closely related to foreign conditions. While it is hazardous to predict, it is at least desirable to note certain other significant conditions, some of which contrast sharply with conditions in 1920. Agricultural production is now at high levels, and we have a prospectively important competitor in Russia, producing with little regard to costs; in 1920 production was notably deficient, partly because Russia had dropped out of the world market. Buildings are now superabundant, whereas there was a serious shortage everywhere following the war. Industrial plants and equipment are at a high level of adequacy, while in 1921 they had been subject to serious deterioration or diverted to war production, making necessary reconversion. Extensive capital investments and credit advances abroad during the past decade supported a large American export trade and stimulated European recovery, but the export of capital in such volume seems hardly likely to continue. Foreign markets are being notably restricted by tendencies toward national self-sufficiency. In general, these conditions do not appear favorable to the rapid recovery in business conditions which followed the crash of 1920. On the side of optimism one may array the increased stability of international relations, the adequacy of our industrial plant, the low rate and abundant potential supply of business credit, and the technical readjustments in stocks of goods, in costs, and in efficiency which occur in a period of severe depression.

How these various assets and liabilities on the economic ledger, and other conditions I cannot mention, will balance out in the next few years, I cannot foresee. The improvement of demand which will accompany the cyclical upswing of the business cycle, now overdue, will certainly lead to some

improvement in the price of farm products; but it is more than probable that the return of agricultural prosperity will take the course indicated by the scriptural prophecy: "Precept upon precept, line upon line, line upon line; here a little, and there a little."

DISCUSSION: CAUSES OF DEPRESSION [1]

Chairman Leffingwell: We are most grateful to Dr. Gray for his most thoughtful and scholarly exposition of the problem of agriculture. I am sure we all agree that there is agricultural overproduction. I suppose some of us are inclined to attribute it to the fact that governments all over the world, including our own, have subsidized agricultural production by the establishment of special agricultural credits and the establishment of special valorization plans.

The formal addresses having now been completed, I am going to ask Professor Wesley C. Mitchell to lead the discussion. Professor Mitchell is well known to us all here. I have to confess that I did him an injustice for a time because, having read years and years ago his beautiful book about business cycles, I thought he had invented the things. But as my scholarship improved a little, I learned that they had been thought of 150 years ago, at least, so my mind is at rest about Professor Mitchell—Professor Wesley C. Mitchell.

Professor Wesley C. Mitchell: This morning's discussion illustrates admirably the complexity of the problem with which we are wrestling. Many economists speak of "the cause" of cyclical fluctuations in business, as if some single antecedent explains the multiform results. Our program committee revealed a different conception when they chose as the title for this session "Causes of Depression." The committee's preference for the plural form has been justified by the five speakers to whom we have listened.

In his pithy introduction, our chairman recalled the errors of judgment committed on a mass scale during the flush times of 1928-29—errors for which we are now paying the penalty. The pessimistic frame of mind which impedes recovery is the obverse of the over-optimism in which we recently indulged.

Mr. Snyder turned from the psychological to the industrial aspects of economic activity. In that broad style of argumentation, which offers such a refreshing contrast to the minutiae of statistical research,

[1] Summary of discussion at the First Session of the Semi-Annual Meeting (Fifty-first Year) of the Academy of Political Science, April 24, 1931, following the presentation of papers by Messrs. Snyder, Holcombe, Fahey and Gray.

he demonstrated that the overproduction theory of depressions is open to grave doubt. Having made this negative contribution to our analysis, he suggested all too briefly the positive contribution which he might have made had time permitted. This positive contribution would have dealt primarily with monetary and banking policy.

Next Professor Holcombe entered the realm of politics, and showed how instability of political conditions impedes business, tending to interrupt prosperity and to accentuate depression.

The tariff factor, with which Mr. Fahey dealt so faithfully, is an unhappy mixture of politics and economics. Attempts to establish prosperity by raising tariff duties have often proved disappointing in the past; but never have they made more trouble for this and other countries than in the last three years.

Finally, Mr. Gray took us back to the farm. With the support of the elaborate body of data which the Department of Agriculture has gathered and set in order, he showed in what large measure the disasters from which the commercial world is suffering are traceable to the hard conditions confronting the most fundamental of man's industries.

Each of our speakers in his turn has been persuasive. Nor, in attempting to sum up the whole discussion, do I see reason for rejecting as wrong or unimportant any line of analysis suggested. Emotional errors in business judgment, monetary and banking policies, political unrest, tariff changes, the plight of agriculture, and other factors not mentioned, have all contributed to make the business depression 1930-31 exceptionally severe and exceptionally wide in its geographic sweep.

If our interest lay solely in seeking to understand this one depression, we might rest content with a listing of the factors involved and an attempt to make out their relative importance. But if we seek to gain such an understanding of economic processes as will help us to avoid future misfortunes of the sort we now suffer, then we must ask how far the depression of 1930-31 is due to cyclical factors proper and how far it is due to influences which are unlikely to recur in their present combination.

Study of many business cycles is the safest guide in an effort to disengage the recurrrent from the non-recurrent causes of depression. On the basis of such study I venture the following opinions. Political stability both affects and is affected by business conditions; but there is no regular conformity between political upsets and cyclical depressions. A similar remark applies to tariff changes. Also, the fortunes of farmers run a course which is very far from parallel with the course of business cycles. Thus I should classify the influences dealt with by Professor Holcombe, Mr. Fahey and

Mr. Gray as random factors. By this I do not mean that future business cycles will be uninfluenced by politics, tariffs and farming. But I see no reason to expect that the political, tariff and agricultural factors will be regularly favorable to business during prosperity and regularly unfavorable to business during depression.

On the other hand, past experience does justify us in saying that business sentiment, industrial output, monetary and banking conditions fluctuate with the activity of trade. What Mr. Leffingwell and Mr. Snyder had to say is applicable to all cyclical depressions, though it may be no more important to an understanding of the current depression than what was said by Professor Holcombe, Mr. Fahey and Mr. Gray.

Let me put this notion in more general form. When economic life is organized predominantly on the basis of making and spending money incomes, all economic activities become mutually interdependent. This mutual interdependence gives rise to business cycles. Prosperity in any part of the system tends to spread to other parts, and to become more intense. But prosperity carried beyond certain limits creates difficulties, which spread from their points of origin, become grave, and bring on recessions in activity. Contraction then spreads and cumulates in its turn; but it ultimately works out conditions which start a revival of activity. Thus our economic organization develops within itself rhythmical alternations of expansion and contraction.

Besides this mutual interdependence among different processes which leads to business cycles, our economic organization has a second characteristic which causes endless complications in the cyclical movements. Business is sensitive to almost everything which affects human life. It is notably sensitive to the effects produced by weather, by inventions, by fashions, by politics—to name but a few factors. All the time, finance, trade and industry are feeling the influence of a host of changes which arise outside the business realm and have no organic connection with its rhythm. Some of these random factors are favorable to business activity; some are unfavorable. The favorable and unfavorable random factors may offset each other at a given time, or one set may preponderate over the other. What course any given business cycle follows depends in large measure upon the particular constellation of random influences which it encounters. Indeed, the cyclical movements make use of these influences from outside the realm of business; they cumulate and enhance the effects of all the favorable or unfavorable influences which bear upon the markets. Were it not for continual changes in these random circumstances, business cycles would be far more regular than they are in duration and intensity.

To apply this analysis to the depression of 1930-31 is not difficult. The general rhythm of business made a recession probable in 1929. That recession took on a catastrophic form in the stock market, because of the follies committed during the preceding speculation. The depression which followed was bound to be characterized by severe financial liquidation. It was rendered still more severe by the depression of agriculture, by the raising of tariff barriers in the way of commerce, by political unrest and fears. The constellation of random factors—of which I have mentioned only a few—was exceptionally unfavorable in its cast, and influenced most of the great commercial nations in much the same way. Hence depression in the United States was aggravated by depression in Europe, and depression in Europe was aggravated by depression in the United States.

On some such lines as these, I think, we can incorporate all the contributions made this morning in a consistent explanation of the present depression. All that is needed to complete the explanation is treatment of several other random factors in addition to those here discussed, and an analysis of the way in which cyclical fluctuations originate in the business realm.

CHAIRMAN LEFFINGWELL: We all enjoyed Professor Mitchell's analysis of our speeches, particularly those of us who made them, and we recognized ourselves in his utterances with more or less precision and more or less assent.

Professor Mitchell, as special counsel for the business cycle, has, if I understand him correctly, introduced a plea which we lawyers call the plea of confession and avoidance. He admits that the business cycle was present at the scene of the crime, but he does not admit that his client fired the shot.

We have twenty minutes left before lunch, and I am going, with your permission, to modify the rule and ask for discussion, but perhaps more brief discussion, from each person who cares to speak, than we should wish to have if the time before the luncheon interval were a little longer. I do hope that the extraordinarily stimulating papers to which we have listened will excite a number of you to an expression of views.

DR. ROYAL MEEKER: It is a matter of very keen regret that Mr. Snyder felt obliged to present to us the economic play of Hamlet with Hamlet omitted. It alleviates our pain and disappointment little to be told that, on former occasions, Mr. Snyder has given the uncensored play in full. When we go to hear Hamlet, we like to hear it in its entirety, no matter how many times we have heard it

before. I have heard with enjoyment Mr. Snyder's Hamlet several times, but I want to hear it again. I like it. I think he improves his interpretation with each repetition.

I felt incited at one period in the morning's discussion to attempt the hazardous rôle of a dove of peace; but I find that is wholly unnecessary since Mr. Gray and Professor Mitchell have reconciled the inherently irreconcilable and have harmonized the mutually inharmonious. The dove of peace has a thin time at best, and I am greatly relieved that these speakers have taken over this bird's dangerous and thankless job.

Now I wish to say that I agree with everything that has been said this morning—that is, everything reasonable. I also disagree with everything—within limits.

I wish that Mr. Snyder would do two things with his very illuminating and confusing curves. First, I wish that he would put them all on the same logarithmic scale. I get all tangled up because one scale is wholly different from another scale, and you think that copper is going right up through the roof, when it is not doing anything of the sort. I wish, too, that he would expand his horizontal scale so as to give us a juster picture of the little wiggles in his curves.

I remember as a young boy reading a book that was designed to show how insignificant we are and how different things are in reality from what they seem. This book compared the earth to an orange and explained very conclusively that the corrugations, which we call mountains, are utterly inconsequential. If the earth were reduced to the size of an orange, these proud mountain ranges, which rear their peaks up to the very heavens, would be invisible to the naked eye. The minute nodules on the skin of the orange are about 10 or 15 times as high, proportionately, as the Himalaya mountains. I have done some mountain-climbing, not in the Himalayas, but in those minor corrugations, the Alps. When I was up two or three miles toward heaven and looked down a half-mile or more to the place where I would land if my foot slipped and the rope broke, this illuminating citrus fruit illustration would have been of very little comfort to me.

I would call attention to the curve showing total world production. If we had that presented in a much magnified scale, the very things that Professor Mitchell has pointed out would become clear to us. Those little wabbles and wiggles would no longer appear so insignificant. They would be connected quite definitely with just the period we are going through now. When I see the thousands of people in the breadlines fed by the peculiar dole system which we have in this country and seem insistent on keeping, it seems

to me that these almost microscopic wiggle-woggles in general production have an importance that is wholly obscured by Mr. Snyder's presentation.

I want to say again that I agree with Mr. Snyder. I agree, that is, as far as one statistician ever can agree with another. I was very glad indeed that Mr. Gray pointed out that the economic play of Hamlet has other characters beside Hamlet in it. You couldn't have a play of Hamlet without the ghost of the murdered king of Denmark to be exorcised and resurrected again. There must be a royal racketeer to bump off the king, seize his throne, and the queen. Then there is fair Ophelia! Oh, we can't leave out the fair Ophelia in these days of feminine equality! She has had a lot to do with the upswing of the silk curve and the downswing of the cotton curve. I assert that the wiggle-woggles of the cotton curve are not regarded as insignificant phenomena in New England, in the South, and in old England.

I don't know that I can draw a moral, but, at least if you feel like it, you can draw this significant conclusion; that ups and downs, wiggles and wabbles in production curves do, as Professor Mitchell has pointed out, have a great importance in our economic life. It is not merely the world's money and credit systems, guilty as they are, that have brought us into this mess in which we are now wallowing.

As to the business cycle and the psychological factor, it seems to me we do not have a psychological emotion or urge without some cause. Why are we depressed; why are we exultant; why do we own the world and sit on top of it; why do we expand our enterprises beyond all reason in times of boom? Well, of course, Professor Mitchell had it all in his address, but I would like to emphasize it still further. We are lured by a more or less illusory hope of profits. This hope is intimately connected, not only with our monetary-banking-credit system—one indivisible system—but also with just what Dr. Gray has described—overproduction, or maladjustment of production, or underconsumption, or underproduction, or overconsumption. I don't care what you call it; but this malevolent ghost is there and he smells as unsweet no matter what name you give him.

Chairman Leffingwell: We should all be poorer if Dr. Meeker had not intervened with his charming and whimsical observations, calling so aptly to our attention the fact that this morning's program omitted as a topic the monetary problems which we all realize are of first-rate importance in connection with the depression. We are all conscious that those problems are of just that importance, first

rate. It subtracts nothing from our consciousness of them that we have listened attentively to Mr. Snyder's candidate overproduction, or the absence of it, and Mr. This's candidate war, and Mr. That's candidate the peace treaty, and the tariff, and one thing or another. That isn't a foolish eclecticism. There is nothing so charming, is there, as to be able to say, "*There* is the man"? Human relations are more complex than that, and it is well for us in these times to recognize the immense diversity of the problems which tied together go to make the welfare and happiness, or the misery of the human race.

Now, I hope somebody else is going to have a word or two.

MR. CHARLES HARRY CHASE (of Ohio State University): I should like to suggest a somewhat different approach to this problem. Instead of searching for evidence of cycles, and for causes of depression, let us undertake to discover what causes prosperity, and thus learn how to create prosperity. Prosperity is not the natural condition. Prosperity always has to be caused through the organization of some fairly well coördinated body of business arrangements.

Depression is mere absence of business activity, mere vacuity. Vacuity does not have to have a cause. Whenever we fail to effect an economic program adequate to employ our resources, depression inevitably ensues.

Almost any sort of body of business projects, if reasonably well coördinated and developed on an ambitious scale, produces prosperity and dispels depression. If we examine Dr. Snyder's charts and take the rapid upward inclines, we shall find in every spot where there are upward inclines a strong program of production, expansion, construction, distribution, and so on. It is a perfectly natural thing that when people get together on such a program they are busy, and it is a perfectly natural thing that when they have no programs, they are not busy—and there you have depression.

For instance, in the period prior to the five-year depression of 1893 to 1898, there was a tremendous railroad-building program. If I remember correctly, during about eleven years we built a third of all the railroads that now span our country. That ambitious program of production naturally absorbed and consumed our production capacities and it distributed to the producers means of buying the wherewithal to furnish their kitchens, and so on. Then what happened? The need for railroads was completely supplied. Our leaders of production did not know very clearly what to do next with their available resources. What caused the depression? What causes darkness? Merely turning off light. There is no need for scientists to hunt other causes of darkness. When we inquire into the causes of prosperity, we shall be on the way to creating prosperity.

Take another period, from 1919 to 1920, following the close of the war. We had 4,000,000 workmen or potential workmen coming out of the army. We had a vast disorganized industry, but we immediately began to organize it. We shipped during about a year after reorganization something like $8,000,000,000 worth of stuff abroad. We carried on that rate of export until we discovered that foreign conditions were such that we were not getting paid. Then we entered the second half of 1920 with no program of production, and depression ensued.

The banks up to that time would not approve of a large building program because, they said, the costs of building were too high. In 1922, however, after the depression of 1920 and 1921, there began to be encouragement of, and banking support for, this building program and several other programs which I might mention. With the beginning of that program we began to get busy and prosperous. A tremendously ambitious building program was continued through the succeeding seven years. In the city of New York, for example, it would not be surprising to learn that twenty-five per cent of all the existing floor space has been built since the late war. That involved a program of production of raw materials. It necessitated a program of transportation. It created a demand for 500-odd classes of supply, producers of which subscribe to the Dodge Daily Building Service Reports in order to know where their markets are going to be. That building program from 1922 to 1929, and some of it continuing still, made for activity. But that was not all. We built some 30,000,000 automobiles during that period. We built roads all over this country. We put gasoline stations everywhere. We put the moving picture industry over. We put the radio industry over.

Now, what I am suggesting is that prosperities are built upon programs. Without a program you have no prosperity. The failure of a continued program results automatically in depression. Until you have a program you cannot have prosperity.

Can there be a program adequate to utilize our present resources and absorb the capacity output of our ever-increasing powers of production? On that point I was pleased to hear Dr. Snyder prove that a given amount of production which may seem oppressive in one period can be handled ten years later so easily that it is not considered a threat of depression. I venture to suggest that the real trouble is fairly simple, however complex it may appear. Our industrial centers are inactive today because they do not know how to organize their larger potentialities of inter-community trade. Community A cannot sell full quotas to Community B, because Community B cannot sell full quotas to C, because C cannot sell

full quotas to A. All of these communities desire to buy more. All of them would buy more if they knew how to mobilize their latent purchasing power. If they can sell increased quotas they can buy increased quotas. There is plenty of latent purchasing power in these stalled circles of potential trade. The problem is to put these potential circles of trade in motion.

I should like to see a different set of charts put up here, not charts of what has happened through all this past period, but charts of our current commercial processes, charts showing where our actual trade flows, and where these latent circles of trade ought to be flowing. The continuance of trade depends upon the maintenance of continuous circles of exchange. A steel-producing community, to be prosperous, must sell some of its steel to the automobile industry. The automobile industry must sell some of its automobiles to the agricultural districts, and the agricultural districts must sell to the steel-producing centers in order to be able to buy full quotas of automobiles.

If we carefully trace out these multiple circles of trade, or potential trade, and seek out means of bringing about simultaneous action throughout each of these circles, we may perhaps find ourselves nearer a solution of this problem. Let us once develop the technique of mobilizing our latent trade capacities, and we should be able to keep industry operating without recurrence of serious depression.

Chairman Leffingwell: I am sure we are all grateful to Mr. Chase for his interesting remarks. We will now adjourn for luncheon.

PART II

INTERNATIONAL ECONOMIC RELATIONS[1]

PIERRE JAY
Former Deputy Agent General for Reparation Payments

THE purpose of this afternoon's session is to consider the bearing of international economic relations on the present world-wide depression. Our immediate topics are such broad factors as prices, wages and gold. If, by international action, the uncertainties created by these factors could be eliminated or reduced, the process of recovery would be correspondingly facilitated. The experience of the past ten years, however, has shown that it is extremely difficult to secure any concerted action, even if all are agreed upon the kind of action which would be desirable and helpful. For, except in Russia, we live under a régime of capitalism and individualism. Each nation tends to regard its own interests as paramount; and within each nation each group tends to regard its special interests as paramount without much regard to the interests of other groups.

Moreover, may I emphasize that in our régime of capitalism and individualism, the influence of broad factors like prices, wages and gold must be considered in the light of our universal aim to produce and distribute goods at a profit. The present depression, like every other depression, has everywhere upset the profit-making process. Everywhere producers and distributors are trying to readjust and bring their business back to a profitable basis. Some are readjusting by reducing volume, some by reducing costs, and some by other methods. But everywhere the adjustment is going on, and not only in business but in the affairs of individuals as well. When it has progressed to a point at which important groups of producers and distributors, looking ahead, feel justified in making programs and commitments for an increased volume of busi-

[1] Introductory Address at the Second Session of the Semi-Annual Meeting (Fifty-first Year) of the Academy of Political Science, April 24, 1931.

ness, then we may regard the times as favorable to revival. In the meantime any practical plans regarding prices, wages and gold which our discussion may suggest as likely to lessen the existing uncertainties in our economic life will encourage producers and distributors to make and execute such programs and thereby hasten the revival.

Opposed to the world-wide régime of capitalism and individualism stands Russia, whose experiment in communism seems to many an important element of uncertainty in the present economic depression. Professor Samuel N. Harper, who will tell us about the Five-Year Plan, is professor of the Russian language at the University of Chicago, of which his father was the first president. His visits to Russia, both before the war and since the war, have been frequent, and he has written a book on the organization of the Soviet state. I take pleasure in introducing Professor Harper as the first speaker of the afternoon.

THE SOVIET FIVE-YEAR PLAN

SAMUEL N. HARPER
Professor of Russian Language and Institutions, University of Chicago

IT was understood that I was to discuss the Soviet Five-Year Plan not as an economist but as a student of history and government. This paper will therefore be subject to the limitations which such an approach implies. The effect of the Five-Year Plan on wages, production and international trade, as contemplated by the economist, will be noted only in most general terms. It is the *politicizing* of economic plans and activity that has been selected for emphasis. The Russian situation, indeed, may be regarded as another illustration of the political factor in economic depression.[1] For, while the Plan has brought a very marked economic revival, and a resumption of Russia's former export and import trade, it has at the same time entailed a marked decline, for the moment at least, in the material well-being of practically all classes of the Soviet community. In this sense there has been depression. Strict rationing of consumers' goods and food supplies and a currency inflation must be noted side by side with the appearance of unemployment—except for those subject to unemployment on political grounds. All these pluses and minuses to be noted may be related to the basic fact that the country is in the fourteenth year of Revolution, the last years being marked by a more aggressive assertion of the principles and methods of Revolution.

The fact of a revolutionary situation may be brought out clearly and effectively by citing the current terminology in all Soviet writings. Thus, the Five-Year Plan is one of "socialistic" industrialization, or again, to quote a phrase met not only in speeches but also in legislative measures, the economic progress made to date has brought Soviet Russia "into the period of Socialism". If the quotas of expansion set for the current third year of the Plan are met, to quote again, "the

[1] *Cf.* Professor Holcombe's paper on "Political Insecurity as a Factor in Business Depression," *supra.*

foundations of a socialistic economy will be completed." This achievement will be due particularly to the rapid progress of the collectivization movement among the peasants, of whom more than half are expected to have joined the collective farms by the end of 1931. There is thus an important political aspect of this economic planning. One may see in the present structure much that is suggestive of the capitalistic order, but on the psychological side the slogans quoted have been of the greatest importance for the development of social enthusiasm and the maintenance of morale.

In this drive for Socialism, officially designated as "the resumption of the socialistic offensive", there has come a "sharpening of the class struggle". The last phrase is also in a sense a legislative norm, for recent amendments to the Soviet Constitution were formally motivated by the more acute class warfare that has developed. Another current slogan, behind the Five-Year Plan, is to the effect that the aim is "to pull capitalism out by the roots", and the last so-called capitalistic elements, the private trader and the "rich peasant" are being rapidly liquidated by administrative measures as well as by the economic pressure of competition. In the preamble to the constitution of a group that forms a collective farm the aims are stated to be the destruction of the rich peasant, of ignorance and of poverty, and in the order given here. Although there has been no formal change in policy toward foreign concessionaires, a considerable number of these have found it advisable to seek a liquidation of their concession rights and investments. The Five-Year Plan is the ideological expression of the new system of economic policy.

At the risk of overemphasizing the slogans and catch-words associated with the Soviet Five-Year Plan, I wish to add a remark on the use of the word Bolshevik. For there has come a most interesting revival of this word, given to the world by the Revolution of October, 1917. It has become a current attributive adjective, to characterize an attitude and also a method of going at tasks and particularly of overcoming obstacles. In any number of a Soviet publication one can find illustrations of the various uses of the word. The first spring sowing after the drive for collectivized agriculture was a "Bolshevik sowing". The recent Soviet elections were

" Bolshevik elections " because of the large percentage of participation by voters and the return to office of shock-brigade workmen and collectivist peasants, who are the products of the new drive for Socialism. The socialistic offensive is also the " Bolshevik offensive ". To summarize the connotations which the word Bolshevik has come to have, it stands for a realistic optimism that does not, however, close the eyes to difficulties or mistakes, and shows daring and faith, side by side with intolerance and hate. Communist boasting is discouraged by the leaders, but they themselves constantly tell their followers that such and such a task can be faced and solved only by a Bolshevik, with his peculiar Bolshevik attitude and training. Bolshevik methods of dealing with economic as well as political problems must be militant, it is constantly explained. The basis of the militant approach is a literal application of the Marxian principle of class struggle.

It is therefore in an atmosphere of class warfare that the Five-Year Plan is being carried out. This gives a vigor to the fight against Russian backwardness in technical and cultural equipment—against poverty and ignorance. But this struggle involves a destruction of important productive forces, the so-called rich peasants, and many managers and engineers, and also economists, who received their training under the old régime. Let me mention the recent spectacular political trials of an alleged " Industrialist party " and of the main political opponents of the Bolsheviks, the Mensheviks. Soon a third political trial will presumably take place, of men accused of organizing a counter-revolutionary " rich peasant " party. These trials, and the extensive arrests and executions of the last months, are manifestations of the sharpening of the class struggle, and are economically destructive precisely at a moment of economic strain. But the Communists believe that only in this atmosphere of class struggle can the latent creative resources of the masses be released and promoted. This moment of sharp transition from one economic policy to another necessarily worsens the immediate economic situation; it is for this reason, among others, that the Communist always speaks of the current year, 1931, as the " decisive year " of the Plan.

The present economic policy, with its spirit of class struggle,

is expected to develop in the masses a new attitude toward work, which, together with new machinery, is to increase markedly their productivity. The expression of this attitude is the so-called " shock-brigade " movement, which started in factories, but has spread to administrative offices and collective farms. Laughed at by many, when first started, this movement has, however, contributed to vigor of effort and enthusiasm. To give it its proper perspective the leaders call this shock-brigade-ism the first step toward a Communist form of labor. An integral part of the movement is " socialistic competition " to meet the quotas of the Five-Year Plan—competition between individual workmen, or groups, or whole factories, or factories and collective farms, and so on—there is a vast number of combinations. The initiative of the workmen has gone even further, where they " meet the Plan ", as it is expressed, by revising upward, on the basis of their estimates of the local situation, the quotas fixed by the central planning authorities.

Piece-work wages and bonuses are utilized to increase the productivity of the individual worker. But public recognition of successful shock-brigade competition or meeting of the Plan is given in a wide variety of ways. " Heroes of Labor " receive the " Order of Lenin ", for example. An interesting contrast might be noted. I can not help but compare my Moscow newspapers with my own Chicago newspapers in the matter of illustrations. In the former one finds pictures of factory workmen who have met their quota of production, or of locomotive engineers or peasant managers of collective farms, rather than the faces of the Lingles, Capones or members of the Hollywood community. Promotions to positions of power also serve to stir up enthusiasm for work and production. The struggle for power is present, and in sharp form in many cases, and this even within the ranks of the chosen, the Communist leaders.

Many have very correctly noted the development of a war psychology, and this is the logical result of the element of struggle, against class enemies as well as against nature, that permeates the Plan. More specifically, many of the measures adopted to carry out the economic program suggest a war situation. Thus there are " mobilizations " of specific groups

of qualified workers, and these mobilizations are more than exhortations to greater effort. There are in many instances allocations to particular jobs. " Labor discipline " is promoted by education and propaganda, but also by measures of constraint. There is the concept of " labor desertion ", that is, leaving a job or looking for a better one, and the public opinion organized to combat such tendencies is supported by restrictive regulations on reëmployment where the workman or office-worker has given up a particular job. As the state controls all the most important economic enterprises, it carries a responsibility for these somewhat similar to that which is always assumed with respect to the armed forces of a country. It is difficult to determine to what extent the element of compulsion is present in the voluntary commitments not to change jobs until the completion of the Five-Year Plan. These measures have been the basis for the sweeping charge that all labor is really " forced labor ". " Class enemies " have in fact been subjected to forced labor in the technical sense of the word. But the term is not applicable to the situation as a whole. The workmen are being brought under a stricter discipline, but it is explained as " self-discipline "—Bolshevik self-discipline. A former foreign concessionaire visited the plant which he had built up and expressed the wish that he might have dared to drive the workmen as they were being driven, in his opinion, in the now nationalized enterprise. A Communist to whose attention the comment was called was pleased and boastful, for in this fact he saw the greatest source of strength for the new order. He changed the wording of the comment, of course, insisting that the new manager " got the workmen to work better " and did not " drive them to work more."

While some see a war psychology behind the enthusiasm that has developed in the drive for Socialism, especially among the young people, others find many suggestions of a religious zeal. Probably this is the Russian, or the eastern element that goes to make up Bolshevism, although the Communist will protest vigorously against this interpretation. Without going into this question of what has been called " the religion of Communism ", I wish to mention it, for the faith in the principles and destiny of the Revolution is a factor that must be

constantly kept in mind. It has a practical aspect in that the correctness of the policy of the Communist Party and Soviet Government may not be questioned with impunity. Heretical tendencies within the party—they are called "deviations from the general line of the party"—are dealt with as unconscious aid and assistance to class enemies. Many outstanding leaders of only a few years ago have been pushed off the political stage, in the name of party unity. The non-Communist who does not believe in the Five-Year Plan, or doubts the wisdom of the speed of industrialization adopted, is liable to be accused of trying to obstruct its progress, of sabotage, or "damage-working" as it is termed, which is counter-revolutionary and may be interpreted as part of an interventionist conspiracy. It would take me too far afield to discuss the recent trials of alleged damage-workers, and particularly the statements that have come out from Moscow regarding preparations and conspiracies for armed intervention (which is the extreme form of sabotage of the Five-Year Plan by its class enemies). In the material produced by these trials the public recantations of those who opposed the policy represented by the Five-Year Plan are interesting human documents, but documents most difficult to interpret and explain. But in one of them there is the statement that even legal opposition inevitably leads to criminal activity in the present "responsible and strained moment of reconstruction", and that this is the peculiar logic of the political struggle accompanying the execution of the Five-Year Plan.

These trials have been utilized for many purposes, one of which is to show the force and genuineness of the enthusiasm behind the Five-Year Plan. The following statement was made by one of the economists on trial. He said, "and if, carrying the heavy weight of building Socialism in the face of the historical backwardness of Russia, the masses accept this enormous strain by raising the productivity of labor, it is clear that we have to do with a conscious attitude on the part of the masses toward socialistic construction, that we have a specific type of social enthusiasm of the masses in their work."

Supplementing the new attitude toward work which the Soviet order is believed to be producing, planned economy is expected to give to the new social order a marked superiority

in the matter of production over the competitive individualistic system of so-called capitalism. Since the adoption of this most concrete and far-reaching program, the Five-Year Plan, as a working basis it has been necessary constantly to alter the plans. There has been a marked falling behind in the schedules in some fields and a completion of the program ahead of time in others. Readjustments have had to be made, and under pressure; and in view of the enormous scale of the plans, often these changes have been very costly. It is not my purpose to summarize the achievements to date, or point out the several very definite failures that have to be noted. It seems to me that a definitive estimate of the index numbers of the Plan cannot yet be made. In any case I do not venture to draw up an *interim* balance sheet. However, "control figures" and the "financial-industrial plan" for each sub-period (the latter is now made by quarter-years to permit of more frequent inventories) are used, and most effectively, to stimulate and organize and, if you wish, exploit the human material as well as the natural resources. The control figures are goals to shoot at, and as such are serving a useful purpose, maintaining a tension of the will, which is one of the features of revolution. The Plan reaches to every field of life, even to the games of the children, and in the concrete form of practical tasks of work-a-day life. One of the most current of the present slogans is "Attention to Production", and it is applicable to studies in primary schools as well as to trade-union policy, although, of course, in varying degrees.

The recently adopted program of activities of the Communist Union of Youth, an organization of some 3,000,000, who in turn direct the Communist organization among children, with its 4,000,000 Pioneers of Communism, is interesting on this point. The entire program is here summarized to show the coördination of various activities and attitudes.

The Youth organization is to be brought more fully under the control and direction of the Communist Party, and is to participate more actively in the decision of concrete questions of socialistic reconstruction. All members must join the shock-brigades and sign up for "socialistic competition", and in the rural districts join the collective farms. By active recruiting the entire working-class youth—young workers and the

children of workmen—must be included in the membership. On the ground that the class struggle is going to become more and more acute, the Young Communists are told that they must develop what is called a "class fighting ability". Also they must increase their technical training. They are enjoined to fight religious influences. Physical culture work must reach all members and must be so organized as to contribute to an increase in the productivity of labor and to the strengthening of defense preparedness; there is an "universal obligatory military training" for all members. The international outlook must be promoted by training, in view of the development of the world economic crisis and the growth in several countries of "an immediate revolutionary situation". Finally the youth organization must give more attention to its work among the children. All children of workmen, agricultural laborers, poor peasants and collectivized peasants must be brought into the Pioneer brigades and there must be a Pioneer troop in every collective farm. As an illustration of the concrete application of this program let me refer to that interesting book which has been translated and published by Professor Counts—a primer on the Five-Year Plan prepared for children by a Soviet engineer—Ilin.

Two very difficult tasks which the Soviet leaders have to face are those of technical training and managerial experience. These problems are becoming more acute as the newly constructed plants enter into production. The first problem is being met by a thorough reorganization of the schools along polytechnical lines. The problem of management is a more difficult one to handle, particularly in view of the concentration of economic organization under planned economy. In the lower units the principle of a "single manager" is gradually being enforced; it has been on the program, but many factors have delayed its realization. And the manager must conduct his enterprise on a strictly commercial basis. This principle also has been theoretically in force for some time but has not been fully realized. Another change in the system of accounting has been made in the last week; a new policy adopted a year ago had not worked successfully. The problem has been to develop responsibility and initiative in management, while limiting strictly the individual reward.

The rôle and structure of the Communist Party, from which practically all the responsible managers are selected, are in point in this question of management. The party is the driving power behind the Revolution—the Soviets, the trade unions, and the coöperative societies being the levers and belts by which it reaches the masses. This is its rôle, and its structure is carefully worked out so that it can fill properly this leading rôle. The main features of this peculiar and powerful political organization are now generally known abroad. It differs from our idea of a political party. Of particular importance for the point I wish to make is the "iron discipline" exercised over its members by the party. Thus the "single manager", as a Communist, has the "collective mind" and takes "the proletarian attitude", so that there is no menace from this system of the single, responsible managers. The party unity and centralized structure supply the coördinating direction for the many and vast enterprises. In the details of execution, as well as in name, the Five-Year Plan is the program of the Communist Party. More and more the party as such determines economic policy and directs economic activity. To this end the party members particularly are being given technical training. One of the lessons drawn from the recent trials of engineers and managers was that Communists must learn to be technicians as well as good revolutionaries.

It should be noted that with this rise of the party to even greater importance in the Soviet order, the membership has been growing. The policy of active recruitment of new members from the factory workmen and from certain groups of the peasantry has been adopted. At present there are around 2,000,0000 members—600,000 having joined last year. In reckoning the proportion of Communists to the total population it is necessary to add to this figure the memberships of the party's organizations of the youth and children—of three and four million respectively. Thus the total of this selected leadership is some 9,000,000 of the 150,000,000—a small percentage, but a larger percentage than is generally noted, through failure to include, as one should, the other very important sub-organizations.

The new capital construction, the mechanization and col-

lectivization of agriculture, and, one should add, the liquidation of capitalistic elements are being carried on at what is called a " Bolshevik tempo ". The very rapid rate of expansion is dictated by several considerations, one of which is the need to shorten the period in which a sacrifice of the benefits of the present is required in the name of the promised fruits of the Plan. There is therefore the very important time factor in the situation. The real test of the Plan is whether it can relieve genuinely and soon enough the drain on the material resources of the country and the nervous energies of the people entailed by the drive, with its " mobilizations " of all kinds—of national income, of labor, of enthusiasm. There has come already a measure of relief in the last months, or in any case the last winter was not as hard as many anticipated. The goal is to raise the standards of living of the masses, and there must be concrete evidence of this as soon as possible, particularly in view of the need to lower these standards in many respects to carry the cost of socialistic reconstruction. While the wage-earners have been given many social benefits for their leisure time, and a sense of security in the matter of a job and some sort of shelter, the constant worry over adequate living quarters, wearing apparel and food-supply in final analysis means a postponement of the first fruits of the experiment. It was expected that the cost of the experiment would be heavy, but it has proven to be heavier than was anticipated, as a result of mistakes, miscalculations and also the general world depression, which has had several adverse consequences for the Plan, particularly forcing a larger export, and at the sacrifice of home consumption, than was reckoned on. This fact leads to a consideration of the effect of the Five-Year Plan on Soviet foreign relations and particularly foreign trade.

In general it can be stated that the left-swing in internal policy of these last years has not been accompanied by a corresponding left-ward swing in foreign policy. It would seem that one reason for this is that the class struggle has been so severe that it could not be carried on both at home and abroad, as the theoretical internationalism of Bolshevism would require. A more specific reason is to be found in the need of developing trade relations in order to secure by import the machinery and other equipment required to complete the

foundations of a socialistic economy, approximately within the time limit set. The economic plans could probably be completed on home resources from now on, but at a much slower pace, and with a consequent postponement of the expected rewards. Also, the promise to introduce the last word in technical improvements from the industrialized capitalistic countries has been one of the basic features of the propaganda at home.

As revolutionaries the Moscow leaders have of course noted the development of what they consider "revolutionary possibilities" in other countries. The Soviet press has been stressing and exaggerating all the maladjustments of the last months, using them to inspirit and indoctrinate their readers. But it has been necessary, as well as expedient, to keep to the task of "building Socialism in one country". And the Communist can say that the successful accomplishment of this task will be the most effective kind of propaganda.

Again, as revolutionaries the Moscow leaders must logically believe that hostile machinations by their class enemies in other countries are in constant progress. This attitude has been particularly marked during the last months. Concrete charges of interventionist plans by capitalistic countries or groups were made during the recent political trials. The sincerity of this belief that groups in the outside "hostile capitalistic world" are preparing to attack the "first proletarian state" has led to active efforts to secure the support of other elements in each country. Despite the absurdity of some of the charges made by responsible Soviet officials, these charges are believed in Soviet Russia, and this belief is sedulously cultivated and then effectively capitalized to stir up a fighting spirit behind the Five-Year Plan. For one of the aspects of the industrialization program constantly stressed is that of preparedness for national defense.

Now, with respect to foreign trade, the situation to date has been in general the following. The export program has been dictated by the import program of the Plan. It has been necessary to force export, at the expense of home consumption, and this situation has been aggravated by the market conditions of the last year. It became necessary to export more than was planned, in order to pay for machinery and

equipment already contracted for or still required by the industrialization program. Faced with a decline in prices for commodities which it exported, and restricted conditions of credit, the Soviet government has had to sell for the best prices it could secure under such pressure. It would seem unreasonable to assume that there has been a deliberate policy on the part of Moscow to disrupt a market in which it had to deal. In other words the foreign trade policy has rested on strictly economic grounds. And there seems to be no indication that there is likely to be a change in this respect in the immediate future, because of Soviet Russia's continued dependence on other countries for machinery and other equipment.

On the other hand, it is to be expected that Soviet Russia will be able to compete more and more actively in the world market in respect of certain products, such as wheat, lumber and oil, as a result of extensive mechanization and the increase in the productivity of labor. Manufactured goods will continue to go, and perhaps in increasing volume, to countries of the Middle and Far East, where they are able to compete despite their poorer quality. The export to countries of Asia has a partially political basis, namely the desire to maintain influence and prestige among the peoples of this part of the world. In general the Soviet Union will undoubtedly expect to recover Russia's pre-war share of world trade, with a proportionate increase on the basis of the expansion of the last years.

Nationalized enterprises and planning make it possible for the Soviet government to act with authority in respect of economic matters, and this holds good for foreign as well as domestic policy. The Soviet order can therefore claim superiority in the way of economic maneuvering. In domestic policy political considerations often have determined the adoption of economic measures, and this practice can be easily and quickly extended at any time to the field of foreign trade relations. But the Bolsheviks have shown themselves to be realists. One can, of course, find revolutionary strategy in every move, just as the Bolsheviks tend to see sabotage, damage-working or other machinations in any activity of their opponents. It has to remain a question of judgment.

That Soviet Russia, through recent developments, has, at least emotionally, become an important factor in world affairs is clear. A year ago there was a little curiosity and a great deal of skepticism about the Five-Year Plan. Now there is a great deal of hysteria over it, but also a greater amount of real interest in it, and in the principles it represents. Soviet Russia presents more of a problem, for the statesman and business man as well as for the student, for the very reasons that make her responsible leaders most boastful, namely the differences in her political and social structure, as compared with other countries. Moscow is challenging certain basic principles adhered to in other countries and is in the midst of trying to prove the superiority of the principles she has adopted. The challenge extends to the field of international economic relations, because of the fact of the state monopoly of foreign trade. The suggestion a few years ago that this monopoly might be modified has been shelved by the developments of internal economic policy. Theoretically the challenge goes even farther, in the revolutionary propaganda which is bound to come from Moscow so long as the Revolution is in progress. For the moment the Five-Year Plan overshadows the Communist International and its program of world revolution, calling as it does for peace and the best possible trade relations with the non-Soviet world.

There is without doubt a great force behind the experiment that is going on in Soviet Russia, however inefficient and costly many of its economic methods to date may be. By force I do not mean simply that powerful machine of political control and manipulation — the Communist Party with its ruling position in the Soviet system. There is an appeal that has taken strong hold on many outside as well as inside the Soviet Union. The attitude of different countries and of different groups toward this experiment is naturally most varied. There is a logic in the policy recently adopted by the Canadian government. There is an element of hypocrisy in a policy to promote Soviet purchases but restrict Soviet sales. The Bolsheviks cannot be treated as we treat our beer barons, whom we like to have with us for certain purposes, and at the same time describe as public enemies. The policy of countries like Germany, Great Britain and others, actively to promote

trade to the point of government guarantees on sales, has been characterized by some as short-sighted, and by others as based on a long-view, realistic attitude. It is a question of judgment, and the wiser policy would seem to be to render a little assistance to the Five-Year Plan, although this may prove hard on the nerves—witness the fact that some groups have been driven to what appears to be a rather hysterical fear of Communist propaganda and Soviet imports. Even if active united opposition were possible—a purely academic suggestion, let me add—it would in my judgment prove harmful politically, in the present economic situation of depression and unemployment, more harmful than the complications and uncertainties which the presence of a Soviet element in the world markets involves. I emphasize the word Soviet and in conclusion again point out the thesis which I have tried to support in this discussion of the Five-Year Plan, namely that it is one of " socialistic " industrialization, implying therefore a whole complex of special attitudes and methods which have *politicized* the Plan in a most effective way, and which make it next to impossible to take a purely economic view of its operation.

CHAIRMAN JAY: We thank Professor Harper for his interesting trip through Russia. If some of you thought we travelled a bit fast, I must explain we are on the air and are working on a schedule much tighter than that of the Five-Year Plan. This schedule rightly eliminates introductory speeches by the chairman. Therefore, in presenting Professor James W. Angell, the next speaker, who will talk to us about price stabilization, I will merely say that he is widely known through his authoritative book on the recovery of Germany, and is himself one of the ablest of the younger economists. Like Professor Harper, he is the son of a great college president.

GENERAL PRICE STABILIZATION

JAMES W. ANGELL
Professor of Economics, Columbia University

THE problem of general price stabilization, in one form or another, has engaged the attention of economists for many years. To some, general price stabilization has seemed to offer the panacea for a large number of the economic ills to which our modern world is heir; and the students in this group have hoped that painstaking study and intelligent imagination might at last show us how to make price stabilization itself a reality. To others, both the proposal and its anticipated effects have seemed to be only romantic fantasies, at best things akin to the vanishing pot of gold at the rainbow's end. In the limited time at my disposal today, I can make no attempt to review in detail the conclusions which have thus far been reached. Still less can I venture any systematic examination of the problem as a whole. I think it is worth while, however, to sketch in hastily the general nature and the general bounds of the problem, and to call your attention to certain significant aspects which are sometimes misunderstood, or even entirely overlooked.

The principal reasons usually advanced for regarding general price stabilization as a major economic problem of the present day are two in number. In the first place, any large change in general prices almost inevitably distorts both the relations between creditors and debtors, and the relations between the receivers and the payers of all other forms of fixed money incomes. These distortions are commonly regarded as unjust. In the second place, wide fluctuations in general prices are commonly associated historically with wide fluctuations in business activity, in employment, and in general prosperity. It is not always entirely clear which set of fluctuations is cause, and which effect; but the world of today needs no further demonstration that the fluctuations themselves are extraordinarily unhappy events. Whether rightly or wrongly, the inference usually drawn is that if the fluctuating prices

from which we now suffer could be replaced by a régime of stable prices, a measurable degree of stability would also be secured in economic conditions at large.

Without further examination, I think it can be taken for granted that general price stability is a desirable goal to aim for. An absolutely fixed, unchanging level of average general prices is probably not necessary. Some economists have instead proposed a slowly rising level, still others a slowly falling level. But whichever alternative is selected, all agree that the extreme width and severity of the fluctuations exhibited in modern societies produce little but evil. Almost any system under which comparative stability could be assured would greatly increase the sum total of human welfare and happiness. If this is true, however, if general price stabilization would bring such unequivocal gains, why was stability not made a substantial reality may decades ago; and why does not every advanced economic society enforce it today? The answer is, of course, that no advanced economic society, or at least no society organized on the basis of economic individualism, competition and private ownership, has hitherto had available that economic knowledge, and those legal and economic powers, which are necessary to bring a true and enduring price stabilization into being. To see why that has been so, it is only necessary to consider the various ways by which general price stabilization itself might be brought about.

One obvious line along which action can be attempted is of course legal price-fixing, by governmental or semi-governmental bodies. We had a good deal of experience with that sort of thing during the war, at least on the side of preventing increases in prices; and the European countries had a still wider experience. The evidence, so far as I am familiar with it, shows that you can undoubtedly fix prices by law, and enforce them, for a *limited* number of commodities and for a *limited* length of time. But nothing in that evidence lends any support to the belief that you can enforce legally fixed prices for *all* the commodities in a competitive society, for an *indefinite* length of time; the surge of powerful economic forces will soon begin to crack the fixed-price structure, and will eventually sweep it away. It may be that the Russian experiment, conducted under quite different general conditions,

will yield more encouraging results. So far as Western societies are concerned, however, all the available facts indicate that legal price-fixing on any comprehensive scale simply will not work.

A second line of possible action is deliberate coöperation among the several producers and traders, deliberate agreement to stabilize the prices of the principal individual commodities themselves. In the United States, agreements of this sort are apt to run foul of our perhaps antiquated Sherman anti-trust law, but in England they are permitted, and in Germany they are actually encouraged. Yet there is little in the experience thus far accumulated to justify the hope that private agreements, even when enforceable at law, can promise any large measure of success. In most cases, and over time, the agreements really operate to limit only the *upward* movement of prices. Whenever really serious economic pressure develops, price-cutting is likely to appear; and then the agreements themselves are likely soon to break down. The recent history of price-fixing of this sort in certain of the basic raw materials and foodstuffs, and in certain semi-finished products, is too familiar to require recapitulation. Moreover, even when a fairly stable level of *prices* is successfully maintained, stability in the related branches of *business activity* has not necessarily been secured. In steel, for example, the comparative stability of certain groups of prices has apparently operated to *increase* the fluctuations in the physical volume of production, rather than to reduce them; and the total money volume of business done has hence also continued to fluctuate. Private agreements can lead to the desired results only when really comprehensive programs are adopted, programs which embrace production control as well as price control, and which look ahead for many years rather than for a few months alone. One of the best things to be said about the Russian experiment, for example, is that it is attempting to set up, by governmental action, precisely this sort of long-range planned economy. The capitalist countries, on the other hand, are still relying largely on the hallowed assumption that a national averaging of individual mistakes will produce the maximum national gain.

The third and last principal line of possible action, and the

one which has the longest history in modern economic thought, is control through the machinery of money and credit. There are certain preliminary logical and empirical difficulties in the way of this suggested type of control, such as the uncertainty of the connection between currency, credit and the price level, on which I shall not dwell. In its most recent and most sophisticated form, it has appeared as a proposal for deliberate control by the central banking authorities in each country. When a substantial rise in general prices is anticipated or is in process, for example, it is asserted by the advocates of this scheme that the central bank has only to raise its discount rate, or to take other related measures. This action will compel a general credit contraction, and will thus force prices down again. Similarly it is asserted, though with somewhat less assurance, that when prices fall unduly low, the relaxation of pressure by the central bank, and the creation of additional credit, will reverse the price movement.

It is not an evidence of constitutional pessimism, however, to question the universal validity of that doctrine. If things were really as simple as it implies, every central bank president in the world would find his task almost a sinecure. Once a month or so, he could push the appropriate financial button, and then go out and play golf. In point of fact, of course, no central bank is in real control of the situation all of the time; and in some countries the central bank is really in control only a small part of the time if at all. In order to have continuously effective central bank control in a given country, certain conditions must already exist in the financial organization and the general economic life of that country. To illustrate the complexity of the problem, it is worth while to list some of the more important of these necessary conditions.

First, substantially all of the important commercial banks in the country must be in the habit of holding their minimum reserves in the form of balances with the central institution (or institutions, as in the case of the United States); second, they must be in the habit of securing necessary additions to these minimum reserves, at least in the first instance, chiefly by rediscounting their assets with the central institution; third, they must ordinarily keep their actual total reserves fairly near the legal or the customary minimum; fourth, they must

be in the habit of placing most of their surplus liquid funds in kinds of assets which can be sold to the central institution, and preferably kinds in which the central institution itself ordinarily deals; and finally, if it is to have any chance of influencing the international situation continuously, the central institution must also be the principal actual reservoir of gold. To the extent that these conditions do *not* exist in any given country, the general control which that country's central bank can exercise will be correspondingly incomplete. More particularly, it will be correspondingly unable to make its wishes effective *in advance* of the actual development of an undesirable general situation. Yet it is obvious that in no country in the world today are these conditions completely realized; and the possibility of genuine *control* by the central banks, genuine direction and stabilization of the economic fortunes of the countries concerned, is correspondingly impaired. In the United States, for example, many important banks are not members of the Reserve System at all; stock exchange loans of course cannot be rediscounted at the Reserve Banks; commercial bank portfolios have become clogged with unsalable securities; and there is no clear agreement among the directing heads of the Reserve System itself as to policies and methods. The real power of the Reserve Banks is hence correspondingly less than it appears to be.

And there are other general difficulties in the way of effective central bank control, which again it must suffice to enumerate. One is the uncertain connection, already referred to, between the volume of currency and credit in a country and the general level of its prices. A second is the lack of homogeneity in the economic life and structure of each country. Some sections of that economic life are usually moving up when others are unchanging or moving down; and any *general* measure of control, while it will help in some directions, is therefore likely merely to make matters worse in other directions. Third, at least in many countries of the world, the importance of *international* exchange is so great in the national economic life, that conditions abroad are frequently the dominant factor rather than conditions at home. Where that situation exists, every effort at domestic control is obviously exposed to the danger of frustration by outside forces which cannot be brought in check.

Yet the actual situation today, and the actual possibilities, are of course not as discouraging as these remarks might suggest: I have perhaps overcolored the dark parts of the picture, in order to make its salient contours clear. Most of the world's central banks do in reality exercise fairly effective control for a fairly large part of the time; and some of them frequently manage to make their control felt reasonably well in advance of the development of serious catastrophes. I think that their efforts can be made to yield even greater success, however, and can be made to lead us measurably nearer to a true stabilization of general prices and economic conditions at large, in two ways. One is the adoption of a deliberate, self-conscious policy of internal control itself, oriented around a general philosophy of stability. The other is extended international coöperation and active mutual assistance.

So far as concerns internal control, the principal *domestic* tools with which the central banks can try to handle *short-run* disturbances are probably pretty well developed already. But that is very far from being true of what we may call their *international* tools, by which they may help both themselves and one another for their mutual benefit; or of their tools for handling *long-run* disturbances: our real knowledge and experience in these directions are still in their infancy. Nor have satisfactory specific aims and guides been worked out, around which a general policy of control can be oriented.

I venture the suggestion, for what it may be worth, that the three or four principal types of fluctuation in economic time-phenomena with which we are already familiar can probably be grouped, for central-bank purposes, into two main classes: short-term fluctuations, covering everything up to and including the three- to four-year business cycle; and long-term fluctuations—secular trends and the like. And I venture the further suggestion that the central banks must deal with these two classes of fluctuation in rather different ways, setting up differing goals and using differing guides to action. In dealing with long-term fluctuations, changes in "the" value of money itself—in general price indices and the like—are probably adequate guides; when the variation exceeds a rather small permissible maximum, corrective measures should be applied. But in dealing with short-term fluctuations as here

defined, this guide becomes inadequate. Relative to short-term periods, changes in " the " value of money are probably, in the proximate sense, *results* of antecedent changes in other factors rather than "causes", and principally results of changes in the general activity of business. The central bank's signal for corrective action, if this interpretation is valid, should then be a variation in *general business activity* greater than the allowed maximum; for if the central bank were to wait until prices also vary, its action would come too late. With respect to short-term periods, that is, the relative stabilization of business activity itself is probably the only sure key to stabilization of " the " value of money and of the general level of prices. Similarly the actual tools used for control of long-term fluctuations will probably differ from those used for controlling short-term fluctuations. The tools the central banks have thus far hammered out have been tools primarily adapted to the control of short-term fluctuations alone. The same tools *may* also be adequate for dealing with long-term fluctuations —notably with those fluctuations which we associate empirically with changes in gold production. But in these directions we have had almost no experience to date, and it is entirely possible that a wholly new armory will have to be forged.

The devices for international control and coöperation are likewise not much beyond their infancy. The central banks know how to control gold flows and capital flights, *provided* the conditions already exist which make such control possible; but they do not know how to create these necessary antecedent conditions themselves. Perhaps the problem is insoluble; but I think it is not. Continuous international collaboration in discount rate policies, the pooling of gold reserves, the interchange of central bank credits, a more effective clearing of current international debts—these and various other devices, which League of Nations committees and other bodies are now studying, should soon be able to yield fruitful results. Even the bugaboo problem of gold and the so-called gold shortage need not prove indefinitely refractory. General price fluctuations are one of the most serious economic evils, or at least one of the most serious symptoms of economic maladjustment, that modern individualistic and competitive societies suffer from. I do not believe that the evil is a

necessary one. I have every hope that human intelligence, and the will to better human conditions, will bring general price stabilization continuously closer to reality. Here lies one economic field in which patient study and the desire to coöperate can almost certainly bring rich rewards.

Chairman Jay: We pass with thanks from Professor Angell's interesting analysis of the possibilities of price stabilization to consider the relation of wages to the problem of recovery. Here the speaker comes also from Columbia University, where, after academic services elsewhere, he has just been appointed a professor. He is also a director of the Amalgamated Bank of New York City and director of research for the Amalgamated Clothing Workers. I have pleasure in introducing Professor Leo Wolman, who has been able to combine scientific competence with a sympathetic understanding of labor problems.

WAGES AND THE RECOVERY OF BUSINESS

LEO WOLMAN
National Bureau of Economic Research

DISCUSSION of the relation of wages to business recovery involves considerations of measurement, economic theory, and industrial and social policy. I shall deal, first, with what appear to be the facts in the matter.

But in another way the problems may be stated in this form. Have wages, no matter how measured, fallen since the beginning of the current depression? Can we satisfactorily measure important changes in wages? Do changes in wages and labor cost necessarily move in the same direction? And finally, is wage liquidation, as an incident in the general method of business liquidation, a sound and effective policy at this time for the promotion of business recovery?

In many large categories of industry and service, including such important fields of employment as the construction industry and clerical work, we have practically no reliable data either on wage rates or earnings and, for the interpretation of the course of events, we must rely on rumor and on certain nominal series, that are known not to reflect the true movement of wages. Actual weekly earnings in manufacturing industries, affected both by unemployment and wage cuts, are nineteen per cent lower in January, 1931 than in March, 1929; in the bituminous coal industry the decline in weekly earnings between February, 1929 and February, 1931 is twenty-nine per cent. On the railroads the earnings of employed labor are only two per cent lower in 1930 than in 1929; and the latest available figures, for January, 1931, still show no discernible downward trend in actual per capita earnings.

Hourly earnings, since they are less influenced by the amount of short-time than are weekly, monthly, or annual earnings, are a superior measure of the changing earning capacity of labor. While the evidence is conflicting, examination of the most reliable series shows that hourly earnings in manufactur-

ing industries were in 1930 between five and ten per cent lower than in 1929. In both the bituminous and anthracite coal industries, hourly earnings declined somewhat more than seven per cent; and in the railroad industry they were, if anything, slightly higher in 1930. The official figures for the building industry record no change in hourly wage rates but it is the common belief that these rates have suffered a substantial reduction during the past year.

All figures of earnings, however, are a function of several variables—the rate of wages per unit of output, the volume of employment, and the productive capacity of labor. When the productive capacity of labor is increasing it is possible to reduce the rate of wages and, yet, to maintain, or even increase, hourly, weekly and annual earnings. For this reason, statistics of earnings are frequently, and particularly during periods of depression, a misleading measure of the burden of labor cost on industry. The only satisfactory measure for this purpose is the rate of wages paid for a specified operation. A small sample of precisely such a series, collected by a federal statistical bureau, shows that wage rates in manufacturing industries have declined steadily throughout 1930 and January, 1931; that the amount of the reduction was larger in the second than in the first half of 1930; and that the average decline for the year, approximately ten per cent, exceeded the reductions during the recession years, 1924 and 1927. It is a pity that similar data are not available for the other groups of industries which, together, employ more than 20,000,000 of the wage and salaried workers of the country.

This, then, is the bare outline of the movement of wages in the United States during these two years of depression; a reduction in the income of those who are now working to levels about twenty per cent below those of the peak of prosperity, a drop in hourly earnings for all industry of probably not much more than ten per cent, and almost a total lack of information regarding the crucial factor of wage rates.

Yet it is precisely this factor of wage rates which is relevant to the current discussion of the relation of wages to the problem of business recovery. Those economists who believe that the recovery of business depends upon the liquidation of wages are

concerned not with the earnings or income of labor but with wages as an element in cost. The fact that the problem is so rarely stated in these terms is only evidence of the paucity of our statistical data and the inadequacy of our theoretical equipment.

Judged by past experience, it is altogether likely that labor costs have steadily declined throughout the period of depression. From 1923 to 1929 the per capita output of labor in all manufacturing industries increased more than seventeen per cent. In the same period hourly earnings rose only five per cent. In the rail transportation industry during the same years, per capita output advanced thirteen per cent, while hourly earnings increased eight per cent. This margin between the productivity and earnings of labor, which may be said to be characteristic of most American industries, is a measure of the extent of reduction in labor costs. The forces that make for increased output in times of prosperity are doubly effective when business is bad and when industrial executives are universally engaged in the quest for all conceivable economies in operation. It is in times like these that labor is speeded up, that the slow workers are dropped from the payroll, and that labor-saving devices are introduced at an accelerated rate. When this happens labor cost is bound to decline, regardless of what the statistics of hourly, weekly or annual earnings may show.

Labor costs, moreover, are only one item in the total array of industrial and commercial costs. There is at present very grave doubt whether many of these other costs of doing business have or can be reduced in proportion to their importance. In a factory in which the total direct labor cost is $5.00 per unit of output and the total annual output is 100,000 units, the salaries of several executives, fixed at the peak of the bull market, still stand at $100,000 a year, or the equivalent of twenty per cent of the total labor cost. I have in mind one large business, by no means an uncommon type, whose rising selling expenses more than exhausted constant reductions in labor costs during each of the last ten years. Particularly in a period when the aggregate volume of business has dropped as sharply as it has in 1930 and 1931, we tend to underestimate the effect of a variety of fixed overhead charges and to ex-

aggerate the importance of such a known factor as wages. Wherever total output has dropped to fifty or sixty per cent of its customary levels, as it has in many American industries, it is plainly impossible to compensate for the vast rise in unit overhead costs by any conceivable adjustments in wages. The only solution for that condition is an increase in the volume of business and, hence, of output.

Much the same problem is encountered in weighing the relation of retail to wholesale prices. It is now the common belief in many quarters that the prevailing level of retail prices is the sole remaining obstacle in the way of expanded consumers' purchasing and the recovery of business. Disregarding our abysmal ignorance of the extent of the reductions in retail prices that has already taken place, I doubt that many of us realize how small a part of the retail price direct factory labor costs often are. Due to a variety of highly complex causes, retailers' margins in many instances stand substantially above their pre-war levels. Added services to the consumer, changes in the method of doing business, the rise of land values and rent have combined to make it difficult for the average retailer to conduct a profitable business on a fifty or sixty per cent margin, in contrast to a profitable margin of thirty to thirty-five per cent twenty years ago. For a commodity, with a labor cost of no more than $6.00, wholesaling at $20.00, the retail mark-up under present circumstances would amount to easily $10.00. Translated into terms of factory labor cost the reduction of these margins from fifty to thirty per cent is tantamount to a revision in the price of labor of more than sixty per cent. The belief that such radical adjustments in costs can even be approached, or that it is possible to reduce the prices of all commodities to the levels reached by distress merchandise, and thus to restore business to a state of health, seems to me an untenable conclusion. In retailing, as in factory production, the time is reached when the relation of the irreducible minimum of overhead cost to the volume of business remains the crucial factor in cost and price. When, throughout all processes of business the volume of transactions has become the decisive element, it would appear to be impossible to make much progress in the direction of recovery by the cutting of wages.

If this view of the problem carries conviction, it is clear that much distress ought to be avoided by the adoption of positive measures for hastening the resumption of business activity.

This is not the time to enumerate these positive measures, but it should prove helpful in this connection to repeat the observations of two professional economists who have plainly described the nature of the present depression and who have boldly attempted to indicate the reasons for its persistence.

Early this month one of the most distinguished of the English economists attributed the prevailing depression to excessive savings.

> There appears [he said] to be a surplus capacity in almost every direction at once. How can that be? I believe we are withholding from consumption more of our income than is able to find an outlet in new constructive enterprise . . . or, as I like to express it, individuals are saving more of their incomes than the business world is able to find an outlet for in new investment . . .

About the same time an eminent American economist, close to the world of affairs, found in the existence of tariffs the chief obstacle to the recovery of business.

> We are [he wrote] in the midst of a severe depression which is world-wide. The most serious obstacle in the way of early recovery is the state of our foreign trade. The most serious obstacle in the way of the revival of our foreign trade is our high protective tariffs. The quickest way to get out of the existing depression is to reduce our tariffs so that our foreign customers may sell more goods here and get more dollars with which to pay interest upon their debts to us and with which to buy our goods. If we do not buy we cannot sell. If we do not buy enough we cannot sell enough.

In November, 1930, the same American economist held that American business is slower than it need be.

> It is not necessary [he then said] to wait for business improvements until we have corrected all adverse fundamentals. Today business is not held back from undertaking anything that promises profit through lack of cash with which to put through the undertaking. The commercial credit situation is clean and strong. I have no disposition to minimize the adverse facts, or to side with those who contend that if we would only think that things are all right they would be all right, and that our troubles are purely psychological. But I do believe that our troubles are partly psychological. I do believe that we have overdone the scare. I do believe that business is a good deal worse than

> it needs to be, even recognizing all of the fundamental difficulties with which it must contend. . . . In a situation of this sort we have the makings of an upturn in business. Just because business has fallen needlessly low, it must react and swing above the line which would represent the level justified by the fundamentals.[1]

I cite these authorities, not because I agree with their particular diagnoses, but because their statement of the case implies that the forces of competitive business may be properly controlled in the interest of a more rapid recovery of business.

If high tariffs are an effective cause of continued depression and if the depression had about run its natural course nearly six months ago, then sound economic policy at this time should involve the formulation of a positive program of business recovery and not blind trust in the expedient of further liquidation. Measures designed to place business on a sounder foundation, which perhaps are essential in the early stages of business decline, can well become, after several years of pretty general deflation, a positive obstacle to the quick resumption of business activity. To assume, as many do, that competitive business somehow moves unerringly to its appropriate and appointed price level and that we have some means of knowing what that level is, seems to me a naïve assumption hard to support with the evidence furnished by experience and logical analysis. On the contrary, the prospect of further liquidation is likely to constitute an unsettling and disturbing force, whose main effect it would be to widen the area of uncertainty as to the future and consequently to prolong the duration of the depression.

CHAIRMAN JAY: We thank Professor Wolman for his presentation of the wage situation and we now proceed to consider the relations of gold to world recovery. In this connection I am glad to tell you that our radio time is up, and the tyranny of the air has passed.

To discuss gold problems the Academy calls on still another professor, this time from Harvard. Dr. John H. Williams, who will now address us, has written an excellent book on the Argentine Exchange, and has made an important contribution to economic statistics by the inauguration, in collaboration with Mr. Fred I. Kent, of an annual study of the balance of payments of the United States.

[1] B. M. Anderson, *The New York Times*, November 6, 1930.

THE GOLD PROBLEM

JOHN H. WILLIAMS
Professor of Economics, Harvard University

THE discussion of gold, I suppose, divides itself into two parts. People ask themselves two questions: whether a shortage of gold exists or impends; and whether there is maldistribution of gold. Our discussions have turned about one or other of the two questions ever since the war. In 1922 the Genoa conference called attention to the possibility of gold shortage upon the resumption of specie payments throughout the world, and more recently, last fall, the Gold Committee of the League of Nations published the results of an investigation. The conclusion was that there would be a shortage of from $40,000,000 to $250,000,000 gold per annum by 1940, and that we were therefore facing a secular downward movement of prices.

My own view is that gold shortage is not a factor in the present situation, and that it is not likely to be a bar to business recovery. In the first place we have had since 1929 a fall of over twenty-five per cent in wholesale prices. That is a much greater fall than the Gold Committee contemplated for the next ten years. In the second place I am extremely doubtful of the theoretical foundation of this report. It appears to be based primarily on some calculations made by Professor Gustav Cassel, of Sweden, relative to the prewar gold supply. He has shown that the gold supply increased at the rate of about three per cent per annum from 1850 down to the World War; and that estimate agrees fairly well with the conclusions of Mr. Kitchin and Professor Edie. I think we can accept the fact that the world's gold supply was increasing at some such rate as three per cent per annum; but I find little evidence that this rate of growth afforded secular stability of prices. Professor Cassel offers some data. He finds an equality of prices as between 1850 and 1910. Aside from the fact that those two years were not in the same position in the business cycles, the 1850 price level being markedly low for that period, and the 1910 level markedly high for its period, he omits entirely to speak of the great gyrations of prices that occurred between

1850 and the war, the 44 per cent increase of prices from 1850 to 1873, the 45 per cent decrease from 1873 to 1896, and the 39 per cent increase from 1896 down to the war.[1] One gets the impression from reading this report that a three per cent increase in the gold supply will bring about a general secular stability of prices. I would submit that there is nothing in the past record to indicate the truth of that assumption. Instead, we have had these great movements of prices, not merely business cycle movements, but secular movements, and these movements apparently have been consistent with an average increase of gold supply of three per cent.

The committee's report contains some data on the period from 1914 to the present, but makes little use of the material presented. For example, the gold supply has increased about one-third since 1914; but central bank reserves have increased about 100 per cent, and deposits throughout the world have increased about 133 per cent. There seems to be at best a very loose relation between gold supply, gold reserves, and bank credit and the price level.

I feel further that the report makes insufficient allowance for the effect of price variation on gold supply. It dismisses that question with the remark that gold output is insensitive to changes in the price level; but in the appendix to the same report there is included a statement by the British Government Engineer in South Africa in which he says that a fall of two shillings per ton of ore would maintain the South African gold output undiminished for the next twelve years. And no mention is made of the effect of a change in price level upon the industrial use of gold or the amount going to the Orient.

I feel entirely unconvinced by this report on the question of gold shortage. A subsequent report alludes to the fact that the surplus gold in 1928 in three countries, the United States, France and Argentina, was $1,800,000,000. An annual increase such as the committee desires could be maintained for the next nine years just by using the surplus in these three countries. Obviously, if this is so—and we all know it is so—the gold question is not one of shortage; it is one of distribution.

[1] The price changes given are for Great Britain; for the United States the changes were 35%, 67% (1865-96), 46%; the price indices are those computed by J. P. Young, *European Currency and Finance*, Commission of Gold and Silver Inquiry, U. S. Senate, 1925.

The United States has about $4,700,000,000 of gold, and France has about $2,300,000,000 at present, so that between them they have about $7,000,000,000 out of a total gold stock of about $11,000,000,000. That obviously is maldistribution in some sense or other. I mean, it strikes one at once as undesirable, as indicative of an abnormal distribution; but I am not quite sure in what sense it is abnormal, and this is particularly important when one considers how to change it. France, for example, has now regained about her prewar supply of gold. That is a large supply, but the French have always liked to have a large supply. The French banking system is an uneconomical one. It is insensitive to gold flow. France is the European sink for gold; but that has always been the case. The United States has increased its reserves by $2,500,000,000, a very large increase, since 1914, but in the same period our bank assets and liabilities have increased by some $37,500,000,000, so that for every dollar gold that has been added to our stock there has been added to our credit something like $15.50. It is therefore not so obvious after all that there has been maldistribution of gold, if we mean by that term that gold has been buried in the United States, that it has been sterilized, as has so commonly been charged by some of the European economists.

The distribution of gold is of course different from what it would have been but for the war. That is true; but of course we did have the war. One cannot talk it away. It has been fundamentally responsible for the changes that have occurred. For example, down to 1925 the United States was the only leading country on the gold standard. Gold came to us because there was nowhere else that it could go. We were able to underbid any other nation in the English gold market because sterling was more depreciated here than elsewhere. We accumulated our gold almost entirely in the period prior to 1925. Since that time, though the movements inward and outward have been pretty violent, the total stock is substantially unchanged. We have had the entirely unsuccessful experiment of trying to push out gold in 1927; and in the minds of some, this experiment was a leading cause of the speculative security boom. Since 1928 gold has been going primarily to France, which has increased its reserves by some $800,000,000.

It is very interesting to note where that gold came from. It has come principally from the young countries of the world, from the South American countries, the Oriental countries and Australia. These parts of the world, plus South Africa, have exported about $1,250,000,000 of gold. Almost all of it came either to the United States or to England, but none of it stayed in England. That is a very striking fact: although England received the gold, she lost it. Very little of the gold has stayed in the United States. To be sure, our gold holdings have increased in the last two years, but the increase has not had the effect of increasing substantially the average gold holding since 1924.

Now why this distribution of gold? I think the facts for the United States are fairly clear. We got the gold during the time when we were on the gold standard and no one else was. Our balance of payments has been favorable to gold inflow whenever capital has not been exported in large amounts. We have tended, therefore, to receive gold on balance for that reason as well. Another reason, though the evidence on this point seems to me not conclusive, may have been our "management" of the standard, the practice of offsetting gold flows by central bank operations in the open market.

England has been losing gold—not in large amounts, but she has none to lose. England has tried to maintain the £150,000,000 minimum, and she has been skating on the edge of it all along. Before the war England had about £160,000,000 gold, about one-quarter of that being in the central bank and the other three-quarters in the other banks or in circulation. Now all of the gold is in the Bank of England, and it is supporting 170 per cent more credit than it did before the war. The efficiency of gold in England has doubled compared with what it was before the war. There is a scarcity of gold, in a sense, in such countries as England.

Why that scarcity? Why has England for the last six years been continually pursued by the fear of loss of gold? I think the first reason is that England resumed the gold standard at too high a figure. She resumed at the prewar level, and consequently her price level ever since has been subject to deflationary influences, which made it impossible

for England to possess her own money market. The English money market has been dominated by outside influences, most of the time, for the last six years. More fundamentally, England's position is due to a bad balance of productive factors. England's difficulties go far deeper than the monetary situation. England has come to the last phase of a long cycle of change that began in the fifteenth and sixteenth centuries. By exporting capital she was able to specialize in decreasing cost industries, and to buy the products of increasing cost industries—raw materials and food products—from abroad; that process enabled her to pile up capital at home so that the more she lost by export the more she had, and it enabled her to pile up population on a small island. But the consequence was that other nations were put in position to use her methods. England was the first user of mass production methods, and now she has been outstripped by some of the younger countries.

The war, I think, was a turning-point in British economic history. She lost markets that she has not been able to regain. Meanwhile high taxation, high wages and the dole constitute a tremendous burden on British industry. One gets the impression that she is fighting a losing battle. The economic pressure on England constitutes a fundamental, underlying force continually threatening her stock of gold. From the point of view of the British investor it is very likely true that the outside market is the more attractive, just as it was in the nineteenth century; but English bankers used to say that a foreign loan would have its effect on England within a few months; it would be noted in her export trade. I do not think that is the case since the war. As Professor Clay has recently put the matter, "Import prices are now within 13 per cent of their prewar level, while English export prices are 51 per cent above their prewar level." That is England's situation as I see it.

Why has France been accumulating gold so persistently? I think the explanation goes back to the fact that France stabilized the franc at too low a figure. Prior to that time the franc had been depreciating markedly. It got down under two cents at one time and capital had been leaving France and flowing to foreign centers when Poincaré succeeded in stabilizing the franc at about four cents. Confidence revived,

capital began to come back and the government had difficulty in holding the franc down to that low level. It had to buy foreign currencies and it accumulated very large balances in New York and London. Since that time France has been prosperous as compared with other nations. Her balance of payments has been favorable to the inflow of gold. The export of capital was prohibited by law down to 1929, and the French have not been interested in exportation of capital anyway. Since the war savings have greatly increased, and the banks have been hard put to it to invest these savings. France has no bill market, and the consequence, I believe, has been the investment of French balances to a great extent in London and in New York. These balances, of course, are very unstable; with the appearance of depression, they have tended to be drawn back. This movement has not been directed by the Bank of France, but has been against the Bank's wishes. The French banks have never leaned very heavily on the Bank of France, which they regard as somewhat a competitor of theirs. They increase their reserves when necessary by drawing their balances from abroad, and this makes for a highly unsteady situation, particularly in London, where the margin above the minimum gold reserve is very, very small; in fact, there has not been any margin of late. Until two or three months ago England was facing that situation almost continually.

It seems to me that the problem of gold regulation by central banks has materially changed since the war. The world is more closely knit, so that no nation can pursue a credit policy in isolation. The international effects of a policy tend to overshadow the domestic effects. This fact has been felt in England, and it has been felt in Germany on a number of occasions in recent years. For example, the Reichsbank has found that when it put up its rate in order to decrease credit, short-time balances have flowed in from abroad; and when it put down the rate in order to increase credit these balances have gone out again. Thus there is a sharp contradiction of effect internally and externally resulting from any change of bank rate, and fundamentally for this reason I think that central banking policy in the future has got to be international.

Now, what can be done to redistribute the world's gold or to minimize the evil effects of the present bad distribution?

First, there is the possibility of economizing gold. We have made a good deal of progress in this respect. Before the war some thirty-five per cent of the world's gold monetary stock was in circulation. Practically all of that has now been taken into the central banks. Gold reserves have been supplemented to the extent of about $2,000,000,000 by gold exchange—another economy, although under present conditions I consider it a rather doubtful one. But further economies are possible. For example, the Bank of International Settlements could do much, I believe, toward minimizing gold flow, by working out some more effective machinery for international clearance. Consider how marvelously economical is our own gold settlement fund in Washington. The total clearings of our clearing houses in 1929 were about $725,000,000,000, and the average daily debit balance of the gold settlement fund was about $25,000,000. Compare the figures—$725,000,000,000 of business done and that business cleared with $25,000,000. It seems to me that gold should, and some day will, be confined entirely to its only essential purpose, which is international clearance. I see no theoretical basis for an internal conversion fund. I would go so far as to apply that even to the bank note. In a country which uses deposits primarily, the flow of bank notes is dependent upon the flow of deposits, and the control of bank notes is secured through the control of deposits.

The principal alleviation to the present bad distribution of gold must be the flow of capital through the world. For some years prior to 1928 we did preserve more or less of a balance in the world through the flow of capital from this country. We were exporting about $1,000,000,000 a year; but first the stock market boom served as a magnet for foreign balances and depleted the reserves of the younger countries of the world, which could ill afford to part with them. That I think to be one of the causes of this depression. Since that time the depression itself has made for a bad international bond market. We ought to lend a sympathetic ear to all responsible suggestions as to ways and means of bringing about a greater international flow of capital from the countries now holding so much of the world's gold, France and the United States.

DISCUSSION: INTERNATIONAL ECONOMIC RELATIONS[1]

CHAIRMAN JAY: With Dr. Williams' illuminating statement on gold and international banking questions, our series of prepared addresses comes to an end; but we still have left two interesting parts of the program. First, there are two speakers who are going to address us, on subjects of their own choice, under the ten-minute rule. The first is Mr. Paul Scheffer, now living in Washington as correspondent of the *Berliner Tageblatt,* one of the most important German dailies. In Germany, Mr. Scheffer is regarded as one of the best informed men on Russian conditions. He lived in Russia for seven years, also as a respresentative of the *Berliner Tageblatt,* and I now take pleasure in introducing him to you.

MR. PAUL SCHEFFER (Washington Correspondent of the *Berliner Tageblatt*): It would be difficult for me to fulfill my appointed function of making incisive and very critical remarks about the address just delivered by Professor Harper, whom I had the pleasure of seeing in Moscow four years ago. I have nothing to object to, but perhaps I have something to add to his remarks, especially in regard to his statement that the Five-Year Plan is the ideological expression of a new system in Soviet Russia.

Now, this is perfectly correct as far as it goes. All these formulations of facts and of happenings in Russia are right as far as they go. But in reality the Five-Year Plan is also the outcome of dire necessity and was adopted by the Soviets with great reluctance.

The reason for the Five-Year Plan is that in 1926 it became evident that private initiative was shrinking at an alarming rate owing to the policy of the so-called little N. E. P. after Lenin's death. This policy, while allowing a certain amount of movement to private initiative, was directed, after 1924, very strongly against every representative of capitalistic efficiency, including the peasants. Under the pressure of this attack the general efficiency of the economic life of Soviet Russia diminished in such a degree that in 1926-1927 it became absolutely necessary for the state to organize initia-

[1] Summary of discussion at the Second Session of the Semi-Annual Meeting (Fifty-First Year) of the Academy of Political Science, April 24, 1931, following the presentation of papers by Messrs. Harper, Angell, Wolman and Williams.

tive. This was possible only through the adoption of a colossal scheme, something big enough to take in all the forces in the country which had ceased to be really efficient. The Five-Year Plan!

We must never forget that the Bolshevist leaders are standing under the logic of the experiment which they started in 1917, and have come more and more under this logic. In order to judge what is really going on in Russia it is better to view the origin of the Five-Year Plan as a consequence of the collapse of Lenin's N.E.P. than to over-emphasize the general declarations made by Marxists.

I have a second point. I fear that we are inclined to consider everything in Russia from the point of view of certain programatical declarations which are issued very lavishly by the Soviet government. For instance, today we have heard about shock-brigades and their lofty aims. These shock-brigades were constituted in the winter of 1929-1930. They consisted mostly of young men. These young men got weapons and they were told that they had to shoot any peasant who resisted the orders which they brought from the Communist Party. This is not a picture of shock-brigades as carrying out an ideological necessity or an ideological program. We have heard about forced labor. I quite agree with the formula of Professor Harper: there is forced labor in fact, but not forced labor in form, and perhaps even in fact it is not extended to everybody. We have heard, however, about workers' being enthusiastic. Now my experience, having seen enthusiasm expressed by people in all parts of the world, has led me to the discovery that the man in the street is enthusiastic (it may not be very popular to say this) only to the next corner of the block. He is no longer enthusiastic there, because he realizes that he is not so well off. He is not an intellectualist; he is a man who knows very much the cruelty of life, and he looks at life very quietly and very soberly. So do the Russian workers, and they know what they have to answer to foreigners.

An important feature connected with the Five-Year Plan, as far as the mood of the workers and even of the devoted and the few really enthusiastic workers is concerned, is the fact that the trade unions have been smashed in order to carry out the plan. That is the reason for a deep, growing resentment among Russian workers, and quite rightly so, because they enjoyed an enormous power under Tomski. Tomski was secretly removed from his position and for five months nobody knew what he was doing. Then it was said that a secretariat had replaced him. Since that time the position of the trade unions has become less and less influential, and the workers know nowadays that they are simply tools for the Five-Year Plan.

I do not say this in order to reflect on the sincerity of the spirit in which the Five-Year Plan has been promoted by the people at the top as a necessary step toward creating a paradise on earth, but I am speaking about the quality of the means used, means which have to be increasingly used in order to carry out this plan. The means are certainly very different from the goal which they are supposed to serve.

I could, of course, talk about certain other aspects of this paradoxical state of affairs. What we hear from Russia are programatical formulations, excellent expressions of what things should be; but even when we go into detail we still very often know little of the realities.

I think the chief reason for this is that under the system of dictatorship there is only one part of the country, the dominating part, which speaks; the rest has to be silent, and as a matter of fact has been silent since 1917. I challenge historians of sixty years hence to state with authority what the Russian people thought during these years from 1917 to 1931. It is impossible, because there are no utterances whatever, neither written nor transferred orally, excepting some few phrases which you will find in an excellent work of Professor Calvin Hoover, who says that the Russian peasants have confided to him that only a war can help them, because then they would have arms and they could dispose of these arms as they liked.

This situation has existed since 1924 and 1925. We have to take all this into consideration if we judge the Five-Year Plan from a moral—which I understand is not important, but still I make mention of this point of view—and from an economic and from a political point of view.

Chairman Jay: The other speaker under the ten-minute rule is Dr. Henry A. E. Chandler, who after teaching at several universities, including Columbia, forsook academic life and became economist of the Bank of Commerce. There, for many years, he contributed illuminating and important articles to the *Commerce Monthly*. Dr. Chandler is now economist of the Guaranty Trust Company, and he has served as economic expert in the consideration of various national and international questions.

Dr. Henry A. E. Chandler (Economist, Guaranty Trust Company of New York): My part in this program is to discuss the papers of Professor Angell and Professor Williams. I had hoped that Professor Angell would advance some rigid plan of stabiliza-

tion in order that I might have something to attack, but he has made such a careful and conservative statement that I can find nothing to criticize.

I find myself in general agreement with the position taken by Professor Williams concerning the gold question, and I shall confine my remarks to some of the points which he has made, and to a few additional points.

There is no one cause for the commodity price decline; part of the extreme decline is an incident of the business depression and of the demoralized business psychology. Part is due to economic causes of long standing; part is a result of economic progress which has given us a permanently lower level of prices for some important commodities. Part is due to an over-expansion of productive capacity without due regard for the general condition of the market.

Certainly part of the problem is the credit situation, and it is only this latter aspect that I shall discuss. The present credit controversy centers upon two questions, the adequacy of aggregate world gold reserves, and the maldistribution of gold.

I do not believe that at any time during the last ten years there has existed a shortage of aggregate world gold reserves. Because of the many changes in the use of gold reserves and credit, many of which have not been measured, and some of which are not susceptible of measurement, it is extremely difficult to reach a confident conclusion as to whether in the future we are to have an adequacy, a shortage, or an excess of gold. If a shortage had been impending, the recent price decline and consequent release of gold must have postponed it for a considerable period. In any event, the important gold problem of the present appears to be not the quantity but the distribution of gold and the use made of it.

The problem of the maldistribution of gold is important but, I think, is not always thoroughly understood. A wholly satisfactory distribution of gold has never been obtained. Before the war eight nations had 83 per cent of the gold in central reserves. Today eight nations have 84 per cent, or 1 per cent more than before the war. Nevertheless, because of the change of distribution among leading nations and some smaller nations, the maldistribution today is worse than before the war. Because of reparations the German gold problem is necessarily difficult. But the outstanding gold shortage today compared with pre-war is that of Russia. The next principal shortages of important nations are for the most part those of nations heavily indebted not on intergovernmental, but on private account—or that have managed internal economic affairs badly.

Three fairly important countries in economic difficulty have had

since the war relatively large amounts of gold. A number of the smaller nations that appear to have a shortage of gold have sight deposits abroad that more than offset their apparent gold shortage. The fifty or more remaining countries never had much.

Many of the countries most embarrassed through lack of gold are those heavily indebted not on allied debt account but on private account. The decline in prices has weighed heavily on all debtors, but principally upon nations that are private debtors. Some of the principal allied debtor countries are also important creditor countries on private account, and the increased weight of their debts, resulting from the decline in commodity prices, is largely, if not entirely, offset by the increased weight of their credits with other countries.

How to correct maldistribution is a highly perplexing problem. In the time allotted it is impossible for me to discuss the many aspects of this question, and I shall attempt to speak of only one or two points that relate to our position.

Our gold reserves stand in about the same proportion to total world gold reserves as our volume of business stands to total world business. If it were not for the fact that we use credit and gold with greater efficiency than most other nations, it could not be said that we had a dollar of excess gold. It appears that eleven nations have larger amounts of gold relative to their volume of business than the United States. Some of them have relatively two to three times as much. Nevertheless, because of the greater efficiency in the use of our gold, and because of our strong creditor position, we do not need an amount proportionate to volume of business, and we can afford to part with a substantial amount.

The question of loans to some of the needy nations is exceedingly difficult, and I shall say only a word concerning our position. The criticism of our foreign lending policy has been that our loans abroad have been insufficient to meet the obligation inherent in our creditor position; also that instead of maintaining an even flow of outgoing capital, we have lent erratically, overlending at one time, and underlending at another.

The inference that we have underlent on long-time account is erroneous. In the long run our capacity to lend abroad depends upon two things: First, the amount of the favorable balance on international payments arising from our total commercial and donation account and from our net income on foreign investment account, including allied debts; second, upon the amount which foreigners deposit or invest in our market. Contrary to common opinion, during the last five years for which data concerning our international payments are available, we have had no favorable balance on our combined commercial and donation account, but have had an aver-

age annual deficit of about 200 million dollars, or a billion dollar deficit for the period. After allowing for our interest payments on foreign investments in this country, the average annual net amount due us on Allied debt and other foreign investment account has been about 700 million dollars. The net amount available therefore for investment out of our own international funds has been about 500 million dollars a year.

We have actually lent abroad in the form of new securities placed in this market or direct investments a much larger amount. The question naturally arises, how could we invest in excess of the amount of our own international funds available for such purposes? The answer is that citizens and institutions in many countries have preferred to put their money into our market or into our securities, rather than into the markets of many other countries that are debtor countries.

Now the question arises, to what extent we are under obligation to reinvest abroad the money which foreigners invest in our market. We are told that we are impeding the progress of the world because we have reduced our foreign investments, yet, as I have already indicated, we have not only lent all of our own funds during every recent year, including 1929 and probably 1930, but we have also re-lent large amounts which foreigners have preferred to invest here rather than to invest in these other countries. Many nations today have funds invested in our market either on long-time account, or in short funds. If foreigners had placed abroad in the debtor countries that need assistance only a moderate proportion of what they have invested here through preference, we would not now have all of this excess gold. Is it not a fair question to ask whether we are under an obligation to continue to reinvest their money under conditions which, and in countries where, they are unwilling to invest it themselves? I shall not attempt to answer the question; I simply throw it out as one which my fellow-members of the Academy may or may not think worth consideration.

In conclusion, I should like to make one suggestion that may have some practical bearing upon our present situation. There is no doubt, I think, that the unusual severity of this depression is in part due to an extraordinary psychological depression. For reasons which I cannot take time to explain I think that psychology plays a much more important part in the trend of business today than in former periods. We now broadcast the difficulties in every part of the world to every other part, and business men are pondering many of the serious problems which are called to their attention. Many of the economic difficulties have been greatly exaggerated, among them the gold problem in many of its aspects. Also there

has developed throughout the world, consciously or unconsciously, propaganda pointed toward the United States, which exaggerates our responsibility for the existing situation, and which also exaggerates the amount of assistance which we can give. If the rest of the world had a correct understanding of our position it would not delay necessary readjustments at home in the hope of obtaining assistance here in greater degree than is practicable. If American business men who now believe that the world cannot recover until we have taken certain drastic steps which are clearly not within the range of possibility of accomplishment, could be given a more nearly correct picture of our responsibility, there would be removed an important element of uncertainty that is complicating the present situation. I think that the most constructive step that could be made at this time would be to correct the exaggerated statements that are so widely current in this country.

Chairman Jay: Mr. Scheffer and Dr. Chandler have added interestingly to our knowledge of conditions in Russia and of gold and prices, but I must say that they have not criticized very heavily the addresses of those who preceded them. Now comes the turn of the audience, and under the five-minute rule I hope we shall have some good sharp shots from members of the audience. Will anyone who wishes to speak, please first announce his name and the organization or association, if any, with which he is connected?

Mr. Schreiber (Jamaica): I am not an economist, but I have been listening to the talks today, and I have not found amongst them any remedy for the depression. To my mind the greatest mistake being made today is trying to stop the depression by cutting down expense. When a cigarette manufacturer decides to place a new brand of cigarettes on the market he appropriates a considerable sum of money to create a market for his product. If the industrial leaders and the bankers who control many of our large corporations will appropriate a large sum of money to start production, the working man will soon provide a market for the products. If the large banking institutions which are earning over six per cent on their capitalization will take their surplus earnings to employ more help instead of making two men do the work of three, and if savings banks, which are mutual institutions, will increase their interest returns instead of decreasing them, even though they may have to dig into the reserves instead of increasing them, the buying power thereby created and the increased confidence of the general public would soon send this depression into oblivion.

Mr. Maurice Mendelson: I am connected with the Amtorg Trading Company. There are quite a number of points in Professor Harper's excellent address with which I disagree, but there are many more in the short address of Mr. Scheffer.

Mr. Scheffer made the statement that the introduction of the Five-Year Plan was the result of the disintegration of Soviet national economy after the introduction of the New Economic Policy. He pointed out that it was the year 1926 that saw the height of that disintegration. I want to point out that from 1921, the year in which the N.E.P. was introduced, to the year 1926, Soviet industrial production increased about six times and Soviet agricultural production about doubled. The development of the transportation system was also quite substantial. It was late in 1926 or early in 1927 that the Soviet Union reached its prewar level. In fact it attained this position earlier than some other European countries. It is therefore safe to say that the Five-Year Plan was not introduced because the N.E.P. failed to achieve its end (that is, to bring the country out of the chaos in which it was plunged in 1921), but that, on the contrary, this Five-Year Plan continues the work done by the N.E.P. The latter brought the country to the prewar condition, and it is the purpose of the Five-Year Plan to raise Soviet production to about three or four times the prewar level.

Another point which Mr. Scheffer made was that the Russian people have been silent ever since 1917. It seems to me that he tries to imply that under the Tsarist government the Russian people had more of an opportunity to express their ideas, their thoughts, their likes and dislikes than they have under the present régime. It would perhaps be useless to quote figures. Nevertheless, it might be noted that before the war three per cent of the Russian city population could vote while at the present time ninety-five per cent of the adult population can vote.

But what I want to point out particularly is that one who reads the Soviet press of today, the *Izvestia* and the *Pravda,* will notice that a large part of the space of these newspapers is devoted to hundreds of letters from workers, peasants, etc., and ninety-nine per cent of these letters are not at all laudatory. Their purpose is not to praise what the Soviet government has done, or what any particular manager has done, but, on the contrary, to find faults and shortcomings. It seems to me that this is at least one illustration of the fact that at the present time the people in the Soviet Union do express opinions and are not as silent as Mr. Scheffer claims they are.

In listening to Mr. Scheffer I recalled some of his articles, in which he recommended that recognition be not extended to the Soviet

Union by the United States, articles in which he was rather opposed to the continuation, and at any rate to the expansion, of trade between the Soviet Union and the United States. It occurred to me that there is a contradiction between what Mr. Scheffer, the representative of the *Berliner Tageblatt,* is saying and what actually is taking place now in the relations between the Soviet Union and Germany. It is a well-known fact that Germany recognized Russia a number of years ago, and that their relations are improving. Furthermore, it is well-known that at the present time, while Soviet-German trade is expanding and large credits are granted on Soviet purchases by Germany, Soviet-American trade is showing a very considerable decline.

Mr. Paul Scheffer: I do not intend to enter into a deep discussion with Mr. Mendelson because I have made it a rule to speak to persons who are purely independent. It is his duty to talk as he does, and he is bound by his position to do so.

I begin with the end of his speech, it being the part which touches me most personally. I have never said that the United States of America should not recognize Soviet Russia, and I have not said it for a very simple reason: It is not my concern to judge whether the United States should recognize Soviet Russia or not. The only thing I have always said is this, that communistic propaganda and the communist organization of revolutionary movements in Europe, and especially in Germany, would get considerable help indirectly if the American government should recognize the Soviets; and that this would be very serious, especially under present conditions when world depression and the activities of Moscow are giving rise to certain possibilities as to the future of Europe which I, at least, consider very disagreeable.

As to the relations between Germany and Soviet Russia: I have no influence on the relations between Germany and Soviet Russia; consequently I cannot be made responsible, as Mr. Mendelson has very kindly attempted to do, for any official moves of the German government in reference to Russia. However, I would like to say one thing: If Germany has become so interested in business with Soviet Russia it is partly due to the excellent propaganda by which the very big orders of the last few years to the United States have come to the knowledge of the German people. In the same way any orders which are given to the German people are distorted over here, and so the effect is cumulative.

Now about these huge credits! I am happy to hear they are huge, because I heard in Moscow that Germany was not giving large enough credits. The actual amount of credit which we have

granted lately, is $75,000,000; and I am sorry to say that the economic relations between the two countries since 1925, when we granted the first credit, have been such that it has not been possible to increase the risk, because, as you know, these credits are guaranteed by the Reich. In 1925 the amount was about 360,000,000 marks, that is $80,000,000. In 1931, after an extremely interesting invitation from Moscow to our large German industrialists, it was not increased. It still remains in that neighborhood.

About the other question, I do not think I can enter into these various phases in one minute. The N.E.P. was a perfect failure, especially for agriculture, as the decline of agricultural production which was obvious in 1927 and after demonstrated. It is certain that already at that time the French did not give any more credits on the export of goods. Such figures as Mr. Mendelson cited are to my mind very, very doubtful as they do not take into consideration all those economic factors which have been strangled and throttled by the N.E.P. The manner in which those factors were handled brought about hunger and lack of supplies during the years after the so-called "reconstruction" of Soviet economy.

As to what the Russian people think, I can only say that to write to a newspaper with your own name in Russia gives you always a little hint of what you are expected to say.

Chairman Jay: Are there any further questions?

Mr. Henry Schenk: I am a member of this Academy of Political Science, and I am particularly interested in the gold question because I have worked with Professor Chandler at Columbia, and because it is becoming of increasing interest to the business men of this country. I am not so young but that I recall 1896 and some of the mistakes that brought about the Bryan episode in our history. However, the gold question is important to us also on account of China, which will undoubtedly come to the fore and will probably change from the silver standard to a gold standard. It was in the hope of hearing about that that I came here to listen to Professor Williams and Professor Chandler. As these gentlemen neglected these large countries of Asia (there is India also) I wish to ask them what they think of that situation in five minutes.

Professor John H. Williams: I don't know what to think about that in five minutes. Of course, it would mean I suppose a very considerable increase in demand for gold if these Asiatic countries should go on the gold basis. Against that we have to set the fact that India now takes some $80,000,000 or $90,000,000 worth of gold

out of the annual supply of about $400,000,000. There is a great deal of gold in the Orient to finance the gold standard of the Orient.

I also think from talking with Chinese students at Harvard (there are a number of them there) that they are very much interested in this particular question and that if China does go on the gold standard it will adopt the gold exchange standard, which would be far more economical and make far less drain on the world's gold supply than would the full gold standard.

I would put this problem in the category of things that we can worry about if we want to, but there are so many other things to worry about that are more concrete, more definitely upon us. One can make out a case for gold shortage if he likes. We have been making one pretty much all the time since the world went on the gold standard, but I am impressed by the fact that we always solve our difficulties in this regard. You see banking is nothing more nor less than the achievement of economy in the supplying of money. We are continually refining upon this mechanism. Consider what a central bank means. For example, member bank reserves in our country are not gold; they are simply paper credits of the central bank, and what that means is that $35 gold will support $100 of member bank reserves, and that this $100 will support $1,000 of deposits in the system. We have a tremendously economical system. We would do without $1,000,000,000 of our gold, perhaps $2,000,000,000, quite readily if there were a way to send it out. What we really need in the world is a more economical use of gold.

Now we are making progress. That must not be forgotten. For example, Germany is supporting fifty per cent more credit today with sixty per cent of the gold that it had before the war; England is supporting from two to three times more credit today with the same amount of gold she had before the war; we have the Federal Reserve System, and I think the next step is more economical banking systems in the younger countries, and above all, effective coöperation among the central banks.

Chairman Jay: We have had questions about Russia and about gold. Are there any questions about prices or wages, or about anything else that has been said by the speakers? Would any of the speakers like to add anything to what they have already said?

Professor Samuel N. Harper: Mr. Scheffer spoke of the emphasis I put on program formulae, but I thought I had made it clear that I was going to emphasize precisely the politicizing of economic plans. On the question of the economic forces behind the new period of the Revolution, which should be related up to the

earlier period of 1917-21, there is no doubt that by 1926 the economic possibilities of the New Economic Policy, introduced in 1921, had been exhausted. Elsewhere I have shown clearly my recognition of the economic forces that were behind the new period of the Revolution; but again may I say that I was emphasizing in my paper today a particular, political aspect. It is true that among the functions of the shock-brigades was that of shooting rich peasants, but I think that this is only part of the picture. I pointed out that side, but also the broader and, I think, constructive side of the movement.

With regard to the genuineness of this enthusiasm, I shall make a confession. The other day an American mechanic, whom I have known many years, returned from a year in a Soviet enterprise. In answer to one of my statements or questions with regard to enthusiasm he said, " You ought to live down there and see how they have to get them out to the meetings." I took into account his reaction, and I have tried to form a judgment of this enthusiasm, and it is my judgment on the basis of a rather extensive trip to various types of communities that there is something creative in the enthusiasm.

Finally, there is no question that it is very difficult in a dictatorship to get on without control of the press and suppression of opposition opinion. I said very frankly, and, as I recall, emphasized, that any doubt with regard to the Five-Year Plan expressed by a non-Communist may and often does lead to the charge of counter-revolution. There is a great deal of self-criticism in the Soviet press, but there is without any question an element of organization behind this self-criticism which qualifies it. In my opinion, again, it is a question of judgment, and these limitations do not eliminate the constructive side of what I have called the politicizing of an economic program.

Chairman Jay: Are there any further questions? If not, with our warmest thanks to those who have made the meeting so interesting and memorable, I declare the meeting adjourned.